

TREE FLORA OF MUDUMALAI SANCTUARY, TAMIL NADU, SOUTHERN INDIA

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Introduction

Mudumalai Wildlife Sanctuary (11° 32' and 11° 43' N lat and 76° 22' and 76° 45' E long.) is situated in the Nilgiri District of Tamil Nadu State. It extends over an area of 321 km² and forms a part of the Nilgiri Biosphere Reserve. Geologically the rocks are of peninsular gneiss. The soils are black sandy loam and red heavy loam. The terrain is undulating with elevation going from 350 m to 1266 m above m.s.l. There is a distinct rainfall gradient from the west and south (higher rainfall) to the east and north (lower rainfall).

A brief description of the major vegetation types is given below.

(1) *Tropical semi-evergreen forest* : Occurs in parts of the south-west of the sanctuary where rainfall is about 1800 mm per annum. Important trees are *Olea dioica*, *Toona ciliata*, *Glochiodion velutinum*, *Evodia lunu-ankenda* and *Meliosma simplicifolia*. Along the streams *Elaeocarpus tuberculatus* and *Ficus gibbosa* occur. Understorey trees include *Viburnum punctatum*, *Clereodendron* sp., *Memecylon* sp. and *Antidesma diandrum*.

(2) *Tropical moist deciduous forest* : Occurs in the western and southern areas of the

sanctuary receiving above 1500 mm of rainfall per annum. The dominant tree species in the canopy include *Lagerstroemia microcarpa*, *Terminalia crenulata*, *Tectona grandis*, *Dalbergia latifolia*, *Lannea coramandelica*, *Terminalia bellirica* and *Elaeocarpus tuberculatus*. *Bambusa arundinacea* is common in moist soils, especially along the margins of the *vyals* or swamps that extent through this region. This forest type has been largely degraded into drier type through extensive logging for timber in the past. As a result perennial grasses such as *Themeda cymbaria*, *Imperata cylindrica* and *Cymbopogon flexuosus* are common in the undergrowth.

(3) *Tropical dry deciduous forest* : A major portion of the sanctuary, having intermediate rainfall in the range of 900-1500 mm per annum, consists of dry deciduous forest. The dominant species include *Anogeissus latifolia*, *Terminalia crenulata*, *Tectona grandis*, *Ougeinia oojeinensis*, *Diospyros montana* and *Gmelina arborea*. The understorey includes *Kydia calycina*, *Cassia fistula* and *Ziziphus xylopyros*. Shrubs include *Helicteres isora*, *Antidesma diandrum* and *Pavetta indica*. Grasses such as *Themeda cymbaria*, *T. triandra*, *Cymbopogon flexuosus* and *Heteropogon contortus* form a dense ground cover.

(4) *Tropical dry thorn forest* : The eastern part of the sanctuary along the border with the Sigur plateau lies in the rain shadow of the Nilgiri massif. Annual rainfall is in the range of 600 to 900 mm. This forest is dominated by *Acacia* spp. (including *A. Chundra*, *A. leucophloea*, *A. polycantha*, *A. ferruginea*), *Givotia rottleriformis*, *Albizia* spp., *Premna tomentosa*, *Dalbergia lanceolaria*, *Ziziphus* spp. The shrubby vegetation includes *Acacia pinnata*, *Canthium parviflorum*, *Rhus mysorensis*, *Maytenus emarginata*, *Capparis* spp. Succulents like *Opuntia dillenii*, *Euphorbia* spp. and *Caraluma adscendens* are common.

Fauna

Mudumalai boasts of a spectacular assemblage of large mammals including herbivores such as Asian Elephant (*Elephas maximus*), Gaur (*Bos gaurus*), Sambar (*Cervus unicolor*), Chital (*Axis axis*), Muntjac (*Muntiacus muntjack*), four-horned Antelope (*Tertracercus quadricornis*), Black buck (*Antelope cervicapra*) and Mouse deer (*Tragulus meminna*), carnivores such as Tiger (*Panthera tigris*), Leopard (*Panthera pardus*), Wild dog (*Cuon alpinus*), omnivores such as Sloth bear (*Melursus ursinus*) and Wild Boar (*Sus scrofa*) and primates such as common Langur (*Presbytis entellus*) and Bonnet macaque (*Macaca radiata*). The biomass of the wild mammalian herbivores is estimated to be about 3645 kg/km², comprising Chital (886 kg/km²), Sambar (1116 kg/km²), Elephant (5540 kg/km²), Gaur (3276 kg/km²) (Varman and Sukumar 1993, and unpublished results).

Mudumalai has also been a research site for teams from Bombay Natural History Society and Indian Institute of Science in recent years. As part of our long-term monitoring of vegetation ecology in Mudumalai (Sukumar *et al.*, 1992) we have

been making extensive collection of plants from this area since 1987.

Here we enumerate the tree species found in the sanctuary. Even though literature exists covering the flora of that area there is a lacuna in coverage of species. Hence this is an attempt to cover the tree flora as comprehensively as possible. All the plant families and species are arranged in alphabetical order with brief notes. Plant nomenclature follows Gamble (1935) as revised by Saldanha (1984) and Mathew (1983). Specimens are housed in the herbarium of the Centre for Ecological Sciences.

Anacardiaceae

Anacardium occidentale L.

Seen only in cultivation.

Fls. Dec.-Jan., Frs. Feb.-June.

Buchanania lanzan Sprengel.

Occasionally in drier parts of the sanctuary.

Fruit a drupe, black, edible.

Fls. Jan.-Apr., Frs. Apr.-May.

Lannea coromandelica (Houttugn.) Merril.

Frequently in Mudumalai. Fruit a drupe.

Fls. Feb.-May, Frs. May-June.

Mangifera indica L.

Commonly found along streams and nallahs.

Fls. Feb.-May, Frs. Apr.-June.

Rhus mysorensis G. Don.

Spinescent shrubs. Frequently found in drier parts of the sanctuary.

Fls. Sept.-Dec., Frs. Apr.-July.

Semecarpus anacardium L.f.

Frequently found in the sanctuary. Flowers unisexual. Fruit a drupe, purplish-black.

Fls. Feb.-May, Frs. Nov.-Dec.

Apocynaceae

Alstonia scholaris (L.) R.Br.

Very rare in the sanctuary easily. Flowers in panicles. Fruit a follicle, pendulous. Fls. Nov.-Dec., Frs. Jan. & Apr.-May.

Carissa carandas L.

A small thorny shrub with milky latex mainly seen in drier parts of the sanctuary. Fls. Mar-Apr., Frs. May-June.

Nerium indicum Mill.

An evergreen shrub seen only in cultivation. Cultivated mainly for flowers. Fls. Throughout the year.

Plumaria alba L.

Cultivated for white fragrant flowers. Introduced. Fls. Apr.-Sept.

Plumaria rubra L.

Seen only in cultivation. Introduced. Fls. Apr.-Sept.

Thevetia peruviana (Pers.) K. Schum.

Cultivated for fragrant yellow flowers. Introduced. Fls. & Frs. Throughout the year.

Wrightia tinctoria R.Br.

A small deciduous tree with shining leaves and milky latex. Fls. Mar.-July, Frs. Aug.-Sept.

Aquifoliaceae

Ilex malabarica Bedd.

Rare in Mudumalai, Fruit a drupe, small. Fls. Feb.-Mar., Frs. Mar.-May.

Bignoniaceae

Dolichandrone falcata Seem.

Occasional in drier parts. Fls. May-June, Frs. July.

Jacaranda mimosifolia D. Don.

Cultivated as ornamental. Fls. Apr.-May, Frs. May-June.

Radermacher xylocarpa (Roxb.) K. Schum.

Frequent in the sanctuary. Fls. Mar.-May, Frs. Nov.-Jan.

Spathodea campanulata Beauv.

Cultivated. Flower red, in terminal clusters. Fls. Feb.-Apr., Frs. Aug.-Sept.

Stereospermum angustifolium Haines.

Rare. Mostly seen in drier parts of the sanctuary. Fls. Apr.-June, Frs. Nov.-Dec.

Stereospermum personatum (Hassk.)

Chatterjee. A large deciduous tree with dense compound foliage. Common. Fls. Apr.-June, Frs. Nov.-Dec.

Tecoma stans (L.) H.B.B.K.

Often seen in cultivation. Fls. Jan. onwards.

Boraginaceae

Cordia obliqua Willd.

Medium sized tree with dropping branches. Common. Fls. Mar.-Apr., Frs. May-July.

Cordia wallichii G. Don

Frequent. Fls. Mar.-Apr., Frs. May-July.

Ehretia canarensis Miq.

Seen mostly in drier parts. Fls. Sept. Frs. May-June.

Bombacaceae*Bombax ceiba* L.

Fls. Dec-Feb., Frs. Apr.-May.

Ceiba pentandra (L.) Gaertn.

Cultivated.

Fls. Jan.-Mar., Frs. Sept.-Oct.

Burseraceae*Boswellia serrata* Roxb.

Seen profusely spreading in Moyar gorge.

Fls. Apr.-May, Frs. July-Aug.

Commiphora berryi (Arn.) Engl.

Seen in drier parts of the park. Often cultivated as hedge plant.

Fls. Feb.-Mar., Frs. Apr.-May.

Commiphora caudata (Wt. & Arn.) Engl.

Occasional confined to drier parts.

Fls. Mar.-Apr., Frs. Apr.-May.

Garuga pinnata Roxb.

Occasional. White gum used in tanning.

Fls. Apr.-May, Frs. Oct.-Nov.

Casuarinaceae*Casuarina equisetifolia* L.

Seen only in cultivation.

Fls. Sept.-Oct. & Mar.-Apr., Frs. Dec.-June.

Caprifoliaceae*Viburnum punctatum* Ham ex D. Don.

Rare.

Fls. & Frs. Oct.-Apr.

Celastraceae*Cassine glauca* (Rottb.) Kuntze.

Frequent.

Fls. Apr.-July, Frs. Oct.-Dec.

Cassine paniculata (Wt. & Arn.) Raman.

Rare in the sanctuary. Seen towards northern parts.

Fls. Mar.-July, Frs. Dec.-Feb.

Maytenus emarginata (Willd.) Ding Holl.

Very commonly found in drier parts of the sanctuary.

Fls. & Frs. Various periods.

Pleurostylis wightii Wt. & Arn.

Mostly in drier parts of the sanctuary.

Fls. July, Frs. Sept.-Oct.

Combretaceae*Anogeissus latifolia* (DC.) Wall. Ex Bedd.

Common in the sanctuary.

Fls. Dec.-Jan. & June-July, Frs. Jan.-Feb. & July-Aug.

Terminalia arjuna Wt. & Arn.

Not very common.

Fls. Apr.-May, Frs. Nov.-Jan.

Terminalia bellirica (Gaertner) Roxb.

Frequently distributed in the sanctuary.

Fruit globose, hard.

Fls. Feb.-Apr., Frs. Oct.-Nov.

Terminalia chebula (Gaertner) Retz.

Commonly found in the sanctuary with round crown. Fruits are of medicinal importance.

Fls. Mar.-Apr., Frs. Nov.-Jan.

Terminalia crenulata Roth.

Very common

Fls. May.-June, Frs. Nov.-Jan.

Clusiaceae*Garcinia gummi-gutta* (L.) Robson.

Confined to wetter parts of the sanctuary.

Fls. Feb.-Mar., Frs. July-Aug.

Dipterocarpaceae

Shorea roxburghii G. Don.

Frequent. Gregarious in some parts. Bark yields resin.

Fls. Dec.-Feb., Frs. Mar.-Apr.

Ebenaceae

Diospyros assimilis Bedd.

Usually along river banks.

Fls. Feb.-Apr., Frs. July-Aug.

Diospyros ebenum Koenig.

A large evergreen tree along Moyar bank.

Male flowers in cluster, female solitary.

Fls. Mar., Frs. Jan.

Diospyros malabarica (Desrousseaux)

Kosteletsky.

Along river bank. Common.

Fls. June-Aug., Frs. Apr.-May.

Diospyros montana Roxb.

Common.

Fls. Apr.-May, Frs. Aug.-Nov.

Elaeocarpaceae

Elaeocarpus tuberculatus Roxb.

Tree found along streams and in wetter parts of the sanctuary.

Fls. Dec.-Jan., Frs. July-Aug.

Euphorbiaceae

Antidesma diandrum Roth.

A small deciduous tree or shrub with low spreading branches. Fruits are edible.

Fls. May-June, Frs. Dec.-Jan.

Antidesma menasu Mig. ex Tul.

Confined to wetter parts. Rare.

Fls. Apr.-June, Frs. Dec.

Bischofia javanica Bl.

A large evergreen tree usually along the streams. Frequent.

Fls. Feb.-Mar., Frs. Oct.-Jan.

Bridelia retusa Roxb.

Medium sized tree. Frequent.

Fls. June-Sept., Frs. Nov.-Jan.

Croton oblongifolius Roxb.

Rare. Confined to drier parts of the sanctuary. Often gregarious.

Fls. Apr.-May., Frs. Oct.-Dec.

Drypetes roxburghii (Wall.) Airy Shaw.

A moderate sized evergreen tree.

Fls. Apr.-May, Frs. Oct.-Dec.

Emblica officinalis Gaertn.

A medium sized tree. Characteristic of disturbed areas. Common.

Fls. Feb.-Mar., Frs. Nov.-Dec.

Givotia rottleriformis Griff.

A moderate sized tree. Confined to the drier parts. Frequent.

Fls. Apr.-July., Frs. Dec.-Feb.

Glochidion velutinum Wt.

A small tomentose tree. Female flowers in exillary fascicles, male in long slender branches.

Fls. Feb.-Apr., Frs. June-Aug.

Glochidion zeylanicum A. Juss.

Usually in moist places or along streams. Occasional.

Fls. & Frs. Feb.-May.

Homonia riparia Lour.

An evergreen shrub or small tree. Found along Moyar bank.

Fls. and Frs. Feb.-May.

Mallotus intermedius (Baillon) Balak.
Along river bank. Leaves opposite.
Fls. Aug.-Sept. Frs. Jan.-Mar.

Mallotus tetracoccus (Roxb.) Kurz.
Medium sized tree.
Fls. & Frs. Aug.-Nov.

Mallotus philippensis Muell-Arg.
A small evergreen tree.
Fls. Aug.-Sept., & Frs. Jan.-Mar.

Trewia nudiflora L.
A medium sized tree.
Fls. Feb.-Mar., Frs. June.-July.

Erythroxylaceae

Erythroxylum monogynum Roxb.
Confined to drier parts of the sanctuary.
Common.
Fls. & Frs. Throughout the year.

Fabaceae

Acacia auriculiformis A. Cunn. ex. Benth.
An introduced plant with adaptation to
xeric condition. Seen only in cultivation.
Fls. Feb.-Mar., Frs. Apr.-June.

Acacia chundra (Rottler) Willd.
Moderate sized tree. Common. Mainly
confined to drier parts of the sanctuary.
Fls. May-Oct., Frs. Feb.-Mar.

Acacia ferruginea DC.
Moderate sized tree in drier parts. Frequent.
Tree is considered to be sacred.
Fls. Aug.-Sept., Frs. Dec.-Feb.

Acacia leucophloea (Roxb.) Willd.
A large sized tree, armed. Frequent
Fls. Aug.-Nov., Frs. Dec.-Jan.

Acacia polycantha Willd.

A moderate sized tree. Occasional. Seen in
drier parts. Gregarious. White or creamish
in terminal spikes. Pods thick.
Fls. Apr.-May, Frs. Dec.-Jan.

Albizia amara (Roxb.) Boivin.
A medium sized tree. Occasional. Seen in
drier parts of the sanctuary.
Fls. Apr.-Aug., Frs. Nov.-Jan.

Albizia lebbek (L.) Bentham.
Occasional.
Fls. Mar.-Apr., Frs. Sept.-Oct.

Albizia odoratissima (L.f.) Bentham.
Occasional.
Fls. Mar.-June, Frs. Sept.-Dec.

Bauhinia malabarica Roxb.
Occasional.
Fls. Aug.-Oct., Frs. Mar.-Apr.

Bauhinia racemosa Lam.
Common.
Fls. Mar.-Apr., Frs. Nov.-Jan.

Butea monosperma (Lam.) Taubert.
Common.
Fls. Feb.-Mar., Frs. Apr.-May.

Cassia fistula L.
Common.
Fls. Feb.-Apr., Frs. July-Feb.

Cassia siamea Lam.
Cultivated.
Fls. Feb.-Mar., Frs. July-Feb.

Dalbergia lanceolaria L.f.
Occasional. Seen in drier parts.
Fls. Mar.-Apr., Frs. Oct.-Jan.

Dalbergia latifolia Roxb.
Frequent.
Fls. Jan.-Mar., Frs. Nov.-Jan.

Dalbergia paniculata Roxb.
Occasional. Mostly seen in drier parts of the sanctuary.
Fls. Mar.-Apr., Frs. Oct.-Jan.

Delonix regia (W.Hooker.) Raf.
Seen only in cultivation.
Fls. Mar.-Apr., Frs. Aug.-Mar.

Dichrostachys cinerea (L.) Wt. & Arn.
A small thorny tree.
Seen only in drier parts of the sanctuary.
Fls. June-Nov., Frs. Different parts of the year.

Erythrina variegata L. var *oreintalis* (L.) Merrill.
Occasional.
Fls. Jan.-Apr., Frs. July-Aug.

Indigofera cassioides Rotter ex DC.
Deciduous, grey-pubescent shrubs.
Frequent.
Fls. & Frs. Oct.-Apr.

Ougeinia oojeinensis (Roxb.) Hocher.
Occasional.
Fls. Feb.-Apr., Frs. May-June.

Gliricidia sepium (Jacq.) Kunth ex Walp.
Often cultivated as hedge plant. Leaves used as green manure.
Fls. Feb.-Apr., Frs. Apr.-May.

Pongamia pinnata (L.) Pierre.
Common. Usually along water courses.
Seeds used in extraction of oil.
Fls. Apr.-May, Frs. May-June.

Pterocarpus marsupium Roxb.
Frequent. Fragrant.
Fls. May-Oct., Frs. July-Feb.

Tamarindus indica L.
Cultivated. Occasional. Sometimes escape

in wild.
Fls. Apr.-May, Frs. Feb.-Mar.

Flacourtiaceae

Casearia esculenta Roxb.
Frequent. Confined to wetter parts of the sanctuary.
Fls. Nov.-Mar., Frs. Dec.-May.

Flacourtia indica (N. Burman.) Merrill.
Common. Confined to drier parts of the sanctuary.
Fls. Nov.-Mar., Frs. Apr.-June.

Scolopia crenata Clos.
A medium sized tree. Spiny at the base.
Fls. Jan.-Apr., Frs. July-Aug.

Leuraceae

Actinodaphne angustifolia (Blume.) Nees.
Seen only in few pockets in wetter parts.
Occasional.
Fls. & Frs. Mar.-Nov.

Cinnamomum malabattrum (N. Burman.) Blume.
Occasional. Confined to wetter parts.
Fls. & Frs. Jan.-June.

Litsea deccanensis Gamble.
Occasional. Seen in wetter parts of the sanctuary.
Fls. Jan.-Mar., Frs. Sept.-Oct.

Litsea mysorensis Gamble.
Rare. Confined to wetter parts.
Fls. & Frs. Oct.-Feb.

Persea macrantha (Nees) Kostermans.
Frequent. Confined to wetter parts and water courses.
Fls. Dec.-Jan, Frs. Apr.-May.

Lecythydaceae*Careya arborea* Roxb.

Frequent.

Fls. Feb.-Mar., Frs. June-July.

Lythraceae*Lagerstroemia microcarpa* Wt.

Common.

Fls. Mar.-May, Frs. June-Aug.

Lagerstroemia parviflora Roxb.

Frequent.

Fls. Apr.-June, Frs. Feb.-Dec.

Malvaceae*Kydia calycina* Roxb.

Common.

Fls. July-Oct., Frs. Dec.-Mar.

Melastomataceae*Memecylon umbellatum* N. Burman.

Occasional. Seen only in the wetter parts of the sanctuary and along water courses.

Fls. Mar.-May, Frs. June-July.

Memecylon gracile Bedd.

A tall shrub. Occasional. Confined to wetter parts.

Fls. Mar.-Apr., Frs. May-June.

Meliaceae*Azadirachta indica* A. Juss.

Occasional. Seen only in drier parts of the sanctuary. Sometimes cultivated.

Fls. Mar.-May, Frs. July-Aug.

Aglaia elaeagnoides (Juss.) Benth.

Occasional.

Fls. Nov.-Dec., Frs. July-Aug.

Chukrasia tabularis A. Juss.

Occasional.

Fls. Apr.-May, Frs. Dec.-Jan.

Cipadessa baccifera Miq.

Shrub. Occasional.

Fls. Jan.-Feb., Frs. Feb.-Mar.

Melia dubia Cav.

Rare.

Fls. Jan.-Mar., Frs. Oct.-Jan.

Soymida febrifuga A. Juss.

A lofty deciduous tree.

Fls. Apr.-May, Frs. July-Aug.

Toona ciliata Roemer.

Occasional. Confined only to wetter areas.

Fls. Jan.-Apr., Frs. May-Oct.

Moringaceae*Moringa concanensis* Nimmo.

Occasional.

Fls. & Frs. Various periods of year.

Moringa oleifera Lamk.

Common. Seen only in cultivation.

Fls. Jan.-Apr., Frs. May-June.

Myrtaceae*Eucalyptus* spp.

Seen only in cultivation.

Fls. Mar.-Apr., Frs. May-Aug.

Psidium guajava L.

Seen in cultivation and also in wild.

Occasional.

Fls. & Frs. May-Aug.

Syzygium cumini (L.) Skeels.

Frequent. Usually found in moist places.

Fls. Feb.-May, Frs. June-Aug.

Moraceae

Artocarpus gomezianus Wall. ex Trecrel. & ssp. *zeylanicus* Jarrett.

Rare.

Fls. Jan.-Feb., Frs. Apr.-May.

Artocarpus heterophyllus Lam.

Occasional. Seen only in cultivation.

Fls. Feb.-Mar., Frs. Apr.-June.

Ficus benghalensis L.

Occasional. Sometimes planted

Fls. & Frs. Various time of the year.

Ficus drupacea Thumb. var. *pubescens*

(Roth.) Corner.

Rare. Often stranglers.

Frs. Dec.-May.

Ficus hispida L.f.

Occasional. Usually along stream in wetter parts.

Frs. Dec.-Oct.

Ficus mollis Vahl.

A deciduous tree.

Frs. Mar.-Sept.

Ficus racemosa L.

Frequent. Sometimes along streams.

Frs. Various times of the year.

Ficus religiosa L.

Frequent.

Fls. July-Sept., Frs. Sept.-Nov.

Ficus tsjahela N. Burman.

A large deciduous tree.

Frs. Feb.-May.

Ficus virens Aiton.

Frequent.

Frs. Oct.-Aug.

Oleaceae

Olea dioica Roxb.

Frequent in wetter parts.

Fls. Jan.-Mar., Frs. Apr.-June.

Schrebera swietenoides Roxb.

Frequent.

Fls. Feb.-May., Frs. Sept.-Nov.

Pittosporaceae

Pittosporum floribundum Wt. & Arn.

Rare.

Fls. Jan.-June, Frs. Apr.-Nov.

Proteaceae

Grevillea robusta A. Cunn.

Seen in cultivation.

Fls. & Frs. Mar.-May.

Rhamnaceae

Ziziphus mauritiana Lam.

Confined to the drier parts of the sanctuary.

Fls. Sept.-Nov., Frs. Dec.-Feb.

Ziziphus oenoplia (L.) Miller.

Frequent.

Fls. Apr.-June, Frs. Dec.-Mar.

Ziziphus rugosa Lam.

Frequent.

Fls. & Frs. Jan.-Apr.

Ziziphus xylopyrus (Retz.) Willd.

Common. Usually seen in drier parts.

Fls. Apr.-June, Frs. Sept.-Feb.

Rubiaceae

Anthocephalus chinensis (Lam.) Rich. ex Walp.

Rare. Confined to wetter parts and along water courses.

Fls. May.-July, Frs. Aug.-Sept.

Canthium dicoccum (Gaertner) Teys. & Binn. var *umbellatum* (Wight) Sant. & March.

Frequent.

Fls. Apr.-Aug., Frs. July-Oct.

Canthium parviflorum Lam.

Common. Confined to drier parts.

Fls. June-Aug., Frs. Nov.

Gardenia gummifera L.

Occasional.

Fls. May-June, Frs. June-July.

Gardenia resinifera Roth.

Occasional.

Fls. Mar.-June, Frs. Aug.-Nov.

Hymenodictyon orixense (Roxb.) Mab.

Frequent.

Fls. June-July, Frs. Mar.-Apr.

Ixora arborea Roxb. ex J.E. Smith.

Occasional. Confined to the drier parts of the sanctuary.

Fls. & Frs. Jan.-May.

Ixora nigricans R.Br.

Rare.

Fls. & Frs. Jan.-May.

Mitragyna parvifolia (Roxb.) Kunth.

Large deciduous tree.

Fls. June-July, Frs. Sept.-Oct.

Pavetta indica L.

Occasional.

Fls. & Frs. Feb.-May.

Randia candolleana Wt. & Arn.

Occasional.

Fls. & Frs. Mar.-June.

Randia malabarica Lamk.

Occasional. Confined to drier parts.

Fls. & Frs. Feb.-Aug.

Xeromphis spinosa (Thunb.) Keay.

Common.

Fls. Apr.-June, Frs. July-Aug.

Rutaceae

Atlantia monophylla Correa.

Rare.

Fls. Aug.-Sept., Frs. Feb.-Apr.

Atlantia racemosa Wt. & Arn.

Occasional. Confined to drier parts.

Fls. Nov.-Jan., Frs. Apr.-May.

Chloroxylon swietenia DC.

Common. Confined to drier parts.

Fls. Mar.-May, Frs. Apr.-July.

Clausena indica (Dalz.) Oliver.

Occasional. Confined to drier parts.

Fls. Jan.-Mar., Frs. Apr.-June.

Evodia lunu-ankenda (Gaertner.) Merrill.

Rare. Confined to wetter parts.

Fls. June-July, Frs. Oct.-Dec.

Feronia elephantum Corr.

Occasional. Seen only in drier parts.

Fls. Feb.-Mar., Frs. Oct.

Naringi crenulata (Roxb.) Nicolson.

Seen only in drier parts. Occasional.

Fls. Apr.-May, Frs. Nov.-Dec.

Sabiaceae

Meliosma simplicifolia ssp. *simplicifolia* Beusekom.

Rare. Seen only in wetter parts.

Fls. Dec.-Mar., Frs. May-June.

Salicaceae*Salix tetrasperma* Roxb.

Frequent. Along water courses.

Fls. Dec.-Oct., Frs. Apr.-May.

Santalaceae*Santalum album* L.

Often gregarious.

Fls. May-June, Frs. Oct.-Dec.

Sapindaceae*Allophyllus cobbe* (L.) Raeusch.

Occasional.

Fls. Apr.-June, Frs. May-July.

Allophyllus serratus (Roxb.) Kurz.

Rare.

Fls. Apr.-June, Frs. May-July.

Filicium decipiens Thw.

Rare.

Fls. Dec.-Feb., Frs. Mar.-Apr.

Sapindus emarginatus Vahl.

Occasional. Confined to drier parts.

Fls. Nov.-Dec., Frs. Mar.-Apr.

Sapindus laurifolia Vahl.

Occasional.

Fls. Nov.-Dec., Frs. Mar.-Apr.

Schleichera oleosa (Lour.) Oken.

Frequent.

Fls. Feb.-Mar., Frs. May.

Sapotaceae*Madhuca longifolia* (L.) Macbride. var.*longifolia*

Occasional. Along streams.

Fls. Feb.-May, Frs. Sept.-Oct.

Madhuca longifolia var. *latifolia* (Roxb.)
Chavalier.

Occasional.

Fls. Mar.-Apr., Frs. Sept.-Nov.

Manilkara roxburghiana (Wight) Duband.

Occasional.

Fls. Mar.-Apr., Frs. May.

Mimusops elengi L.

Occasional. Along water courses.

Fls. Mar.-Apr., Frs. Aug.-Sept.

Simarubaceae*Ailanthus excelsa* Roxb.

Occasional. Confined mostly to drier areas.

Fls. Feb.-Mar., Frs. Apr.-May.

Solanaceae*Solanum giganteum* Jacq.

Occasional.

Fls. Mar.-Apr., Frs. May.

Sterculiaceae*Eriolaena quinquelocularis* (Wt. & Arn.)

Cleghorn.

Frequent.

Fls. July-Aug., Frs. Jan.-Feb.

Helicteres isora L.

Common. Usually in marshy or wet places.

Fls. & Frs. Apr.-Dec.

Sterculia urens Roxb.

Occasional. Confined to drier parts.

Fls. Dec.-Jan., Frs. Apr.-May.

Sterculia villosa Roxb. ex DC.

Occasional.

Fls. Mar.-Apr., Frs. June-July.

Tiliaceae

Grewia orbiculata Rottler.
Occasional. Confined mostly to drier parts.
Fls. & Frs. May-July.

Grewia tiliifolia Vahl.
Frequent.
Fls. Feb.-Apr., Frs. May-June.

Ulmaceae

Celtis tetrandra Roxb.
Occasional.
Fls. Jan.-Mar., Frs. May-June.

Celtis timorensis Span.
Rare.
Fls. Jan.-Mar., Frs. Mar.-June.

Holoptelea integrifolia (Roxb.) Planchon.
Rare.
Fls. Jan.-Mar., Frs. May-June.

Trema orientalis (L.) Blume.
Rare.
Fls. Feb.-Mar., Frs. Apr.-May.

Verbenaceae

Callicarpa tomentosa (L.) Murray.
Occasional.
Fls. & Frs. Through out the year.

Clerodendrum serratum (L.) Moon.
Occasional.
Fls. May-Aug., Frs. Sept.-Nov.

Gmelina arborea Roxb.
Frequent.
Fls. Mar.-May, Frs. Nov.-Dec.

Gmelina asiatica L.
Rare. Confined to drier parts.
Fls. & Frs. Throughout the year.

Premna tomentosa Willd.
Common in drier parts.
Fls. Mar.-Apr., Frs. June.

Tectona grandis L.f.
Common.
Fls. June-Aug., Frs. Nov.-Jan.

Vitex altissima L.f.
Occasional. Sometimes along river courses.
Fls. Apr.-Aug., Frs. June-Sept.

Vitex leucoxydon L.f.
Rare. Usually along stream banks.
Fls. Feb.-Mar., Frs. June.

Vitex peduncularis Wall.
Rare. Usually along stream banks.
Fls. Mar.-June, Frs. May-July.

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SUMMARY

A survey conducted on the tree flora of Madumalai Sanctuary, Tamil Nadu is given with brief notes.

मडुमलई अभयारण्य, तमिलनाडु, दक्षिण भारत के वृक्ष पादप
एच०एस० सुरेश, एच०एस० दत्ताराज व आर० सुकुमार

सारांश

मडुमलई अभयारण्य, तमिलनाडु के वृक्ष पादपों के किए गए एक सर्वेक्षण को उनकी प्रचुरता, वर्धी लक्षणों और ऋतुजैविकी के बारे में संक्षिप्त टिप्पणियों सहित इसमें दिया गया है।

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