

The Southern Thorn Forests

This type occurs on shallow and bouldary soils and on the outcrops of lime stone, kankar and Gneissic rocks upto an elevation of 1,100 metres, annual rainfall being 60 to 70 cm a year. Climatic conditions are extremely dry.

The Floristics of this type of forest are detailed below:-

Over wood:

The main species are Parambai (*Acacia ferrugines*), Unjal (*Albizzia amara*), Velvelam (*Acacia Leucophloes*), Malan Kiluvai (*Protium caudatum*), Neem (*Azadirachta indica*), Palai (*Wrightia tinctoria*), Vandalai (*Givotia rottleriformis*), Mulkiluvai (*Commiphora berrvi*), Porasu (*Chloroxylon swietenis*), Tamarind (*Tamarindus indica*), Pyral (*Canthium Diccocum*), Vakkanai (*Diospyros Montana*), Zizyphus species etc. The trees usually have short boles with low branching crowns. The height usually ranges from 8 to 10 meters. The forest deteriorates into a thorny scrub as one proceeds eastward.

Under storey

There is an ill-defined lower storey of sapling and pole stages of overwood and large shrubs, mostly spiny and often with xerophytic characters. The species constituting the underwood and Karai (*Randia dumetorium*), Kilakkai (*Carissa carandas*), Sempulichan (*Erythroxyton monogynum*), Vedathalan (*Dichrostachys cinerea*)? Kattuelimichai (*Atlantia monophylla*), Vellakumil (*Gmelina asiatica*), Avaram (*Cassia auriculata*), Virali (*Dodonea viscosa*), Puchedi (*Lantana camara*), and Pullavaram (*Mundules serices*). Gregarious growth or grass are scanty and are present for a short period during monsoon. These forests are subjected to much degradation by biotic factors like heavy grazing, trampling and illicit removal.

Undergrowth

Consists of Avaram (*Cassia auriculata*), Pullavaram (*Mundulea sericea*), Virali (*Dodonea viscosa*), and Athondai (*Capparis zeylanica*), but very often species such as Puchedi (*Lantana camara*), Indu (*Acacia intia*) and Karu Indu (*Petrolobium indicum*) form impenetrable thickets in cleared areas and around Hill Tribe settlements and suppress regeneration badly.

Ground Flora

Consists of *Pavania sevlanica*, Poolai (*Awerva lantana*), Kattu samanthi (*Ageratum conyzoides*). Grasses are scanty and are present for a short period during monsoons.

The Southern Dry Mixed Deciduous Forests

This is the most important type of the Forests occurring in this Division, as economically valuable species grow here. In Bolampatty Reserves, west of the Chunnambu Odai, in the Walayar Valley and bulk of the Forest in the heart of Bolampatty Valley below an elevation of 1060 meters these forests are present. The important species found in this type of forest are furnished below under the respective floristic groups:-

Over wood

The Chief species are Velvagai (*Albizzia lebeck*), Vagai (*Albizzia procera*), Aya (*Holoptelia integrifolia*), Porasu (*Chloroxylon swietenia*), Vengai (*Pterocarpus marsupium*), Pachalai (*Dalbergia paniculata*), Thani (*Terminalia bellerica*), Vellanagai (*Anogeissus latifolia*), Thovarai (*Diospyros* species), Teak (*Tecona grandis*), Thanaku (*Gyrocarpus jacquini*), Vandalai (*Givotia rottleriformis*), Pyrai (*Canthium dicoccum*), Unjal (*Albizzia amora*), Neem (*Azadirachta indica*), Karuvagai (*Albizzia odoratissima*) Venteak (*Lagerstroemia lanceolata*), Thadasu (*Grewia tiliaefolia*), Pillamarudu (*Terminalia bellerica*), Othalai (*Acacia suma*), Vila maram (*Feronia limonia*), Sandal (*Santhalum album*), Konnai (*Cassia fistula*), Acha (*Hardwickia binata*), Poochakottai (*Sapindus emarginatus*), Tamarind (*Tamarindus indica*) etc.

Under Storey

Consists of Thethankottai (*Strychnos potatorum*), Vellakumil (*Gmelina asiatica*), Kuttipila (*Sterblus asper*), Kambili (*Gardenis* species), Nona (*Morinda tinctoria*), Kamala (*Mallotus philippinensis*), Vellathi (*Bahinia malabarica*), Puchedi (*Lantana camara*), Indu (*Acacia intsia*), Kattu elimichai (*Atlantia monophylla*), Sembulichan (*Erythroxylon monogynum*) and *Zizyphus* species.

Undergrowth

Consists of Kurinji (*Strobilanhus*, species), Sundakkai (*Solanum Trillobatum*), Pavakkai (*Parvrtta Indica*), Nochi (*Vitex negunda*), Malayavaram (*Cassia Montana*), Yaraikollikodi (*Derris* species), Odankodi (*Hippocratea indica*), Oothalkodi (*Ichnocarpus frutescens*), Pillani (*Calvcopterus floribunda*) etc. are the chief climbers.

West Coast Semi Evergreen Forests

In Bolampatty Range it occurs above 1,500 metres in small patches on the Periakunjirimalai, Vellingiri, Koppudukamalai and Varadamudy.

The floristics of this type of forest are detailed below:

Upper Storey

The chief species are Kodamavu (*Machilus macarantha*), chola vengai (*Bischofia javanica*), *Litsea* species, Naval (*Syzygium* species) *Garcinia cambogia*, *Cinnamomum sulpharatum*, Rudraksham (*Elacocarpus serratus*), *Sumplocoslaurina* and Thovarai (*Diospyros* species), Kattu Pinnai (*Calophyllum elatum*), Thali (*Actinodaphno hookeri*), Nekkini (*Canthium dicoccum*), Nangu (*Mesua ferrea*), Pali (*Palaquium ellipticum*) etc.

The trees are smaller and often festooned with Lichens, mosses and herbaceous epiphytes. Kurunchi forms extensive thickets in this type of forests.

West coast tropical evergreen

This type occurs in small patches on upper slopes of Bolampatty Block II R.F. on the Vada Varadimalai Plateau and along the Valleys of Walmukkiar, the Kanavaraiar, the Noyilar, the Arear, the Chinnar, and the Mundanthoriar. The typical evergreen or 'Rain Forest' is characterized by its luxuriance of vegetation consisting of several tiers, the highest containing tall trees and the lower containing dense shrubby undergrowth. A heavy rainfall, high humidity, and a short dry season are characteristic of this type. But the shoals here are not so dense or luxuriant as the typical west coast ever greens, as the rainfall is less intense. They are restricted to elevation over 1200 metres, where they are wind-swept, thereby considerably reducing the height of the over wood. At elevation above 1,500 metres, three tiers of vegetation are common.

Upper Storey

This consists of Vellakuthirikam (*Vateria macrocarpa*), Malamkonnai (*Acrocarpus fraxinifolius*), Pali (*Palaquium ellipticum*), Nangu (*Mesua ferrea*), Vedipila (*Cullenia resavrana*), *Syzygium* species, Cholavengal (*Bischofia Javanica*), Santhana vembu (*Cedrela toona*), Pila (*Artocarpus heterophyllus*), *Aglaia* species, *Litsea* species etc. Very often a preponderance of species like Malamkonnai and Santhana Vembu is seen.

Second Storey

This consists of Shempuvan (*Euphorbia longana*), Valta (*Macaranga peltata*), Litsea Stocksili, Glochidion Melataricum, Muravetti (*Hydnocarpus laurifolia*), Syzygium species, Nedunare (*Polvathia coffecides*), Nekkini (*Canthium dicocum*), Manikalikki (*Agrostistachys longifolia*) and Thali (*Actinodaphne hookeri*).

Third Storey

The shrubby third storey is represented by Vekku (*Leea indica*), Vatakkanni (*Clerodendron viscosus*), Syzygium species, Anaichoriyan (*Laportea orenulata*), Callicarpa lanata, Kurinji (*Strobilanthus species*), Webra sp.etc.

The monocotyledons are represented by Alampanai (*Arenga wightii*), Kanakamutu (*Pinanga dicksonii*), Calamus species, Thali (*Pandarus furcatus*) and herbaceous species like wild arrowroot and some of the Araceae, Itakalli (*Cochlandra beddomei*). The common Malabar need is occasionally met with between Mylon's Bungalow and the Muthikulam pass.

Climbers, which are not as abundant or as numerous as in the deciduous forests are represented by Anapendu (*Gremacandens*) Smilax zeylanica, Derris species, Gillu (*Entada phacotoidis*) etc.

Herbaceous ground floras are meagerly represented within the shoals by Cucurma species and Haeckeria sahpeliata.

List of Important Trees species found in this Division

Western Ghats Endemic

1. *Artocarpus hirsutus* - Ayinipala

Threatened

1. *Cycas circinalis* - Kodicham
 2. *Santalum album* - Santhanam
 3. *Rhododendran arbouratum* - Poo

Important Species

1. *Pterocarpus marsupium* - Vengai

2. <i>Boswellia serrata</i>	-	Kungilliam
3. <i>Cinnamomum zeylanicum</i>	-	Lavangam
4. <i>Dalbergia latifolia</i>	-	Itti
5. <i>Tectona grandis</i>	-	Thekku
6. <i>Garcinia cambogia</i>	-	Kodampuli
7. <i>Schleichera oleosa</i>	-	Poovathi
8. <i>Chloroxylon swietenia</i>	-	Porasu
9. <i>Canarium striatum</i>	-	Karukungilium
10. <i>Cullenia rosayraona</i>	-	Vedipila