

VASCULAR PLANTS OF PACHAMALAIS

K. M. SEBASTINE AND A. N. HENRY

Botanical Survey of India, Coimbatore

ABSTRACT

The Pachamalais are covered by extensive forests and are situated along the north-western border of Tiruchirapally district in Madras State. The altitude of the hills ranges from 567 m. to 1000 m. The range is surrounded by steep slopes and forms a plateau at the top. This area remained botanically unexplored until three exploration trips were conducted in the year 1958-59; a total of 285 species representing 75 families and 226 genera were collected.

The forests of Pachamalais, present a vegetation of the South Indian tropical dry deciduous type and are characterized by populations of *Acacia chundra*, *A. leucophloea*, *Albizia amara*, *Anogeissus latifolia*, *Bauhinia racemosa*, *Chloroxylon swietenia*, *Dendrocalamus strictus*, *Dichrostachys cinerea*, *Dodonaea viscosa*, *Mangifera indica*, *Santalum album*, *Strychnos nux-vomica*, *Terminalia arjuna*, *T. chebula*, *T. paniculata*, *Zizyphus mauritiana*, *Z. xylopyra* and climbers like *Cardiospermum halicacabum*, *Dioscorea hispida*, *D. oppositifolia* and *Pachygone ovata*. The plateau at the top shows a thick vegetation consisting of *Capparis zeylanica*, *Carissa carandas*, *Clematis gouriana*, *Cylista scariosa*, *Gnetum ula*, *Jasminum rigidum*, *Morinda umbellata* and *Zizyphus rugosa*.

In the present enumeration the families with the largest number of species are Leguminosae 29, Gramineae 28, Euphorbiaceae 23, Acanthaceae 13, Cyperaceae 13, Verbenaceae 11 and Compositae 10. These seven families contain 42.8 per cent of the total flora of the forest.

INTRODUCTION

The Pachamalais are covered by extensive forests and are situated along the north-western border of Tiruchirapally district in Madras State. The altitude of the hills ranges from 567 m. to 1000 m. The hills show steep slopes on the sides and form a plateau at the top. The whole tract lies between 11°5'-11°25' N. and 78°25'-78°45' E.

Three seasonal botanical explorations were undertaken in these unexplored areas, the itineraries of which are as follows:

Exploration I	5-8-1958	Foot of Pachamalais
	6-8-1958	Way to Top-Chengattupatti and Puliyancholai
	7-8-1958	Sobanapuram and Uppiliyapuram
	8-8-1958	Foot of Pachamalais and way to Puliyancholai
	9-8-1958	Top-Chengattupatti and surrounding regions
	10-8-1958	Northern slope of Pachamalais
	11-8-1958	Uppiliyapuram and surrounding regions
	12-8-1958	Way to Varichettipalayam
Exploration II	26-10-1958	Foot of Pachamalais
	27-10-1958	Way to Top-Chengattupatti
	28-10-1958	Top-Chengattupatti and surrounding regions
	29-10-1958	Puliyancholai
	30-10-1958	Sobanapuram and Uppiliyapuram
Exploration III	18-3-1959	Foot of Pachamalais
	19-3-1959	Way to Top-Chengattupatti
	20-3-1959	Top-Chengattupatti and surrounding regions
	21-3-1959	Sobanapuram and way to Thuraiyur
	22-3-1959	Puliyancholai

SOIL

The region is characterised by gneissic rock with pockets of cretaceous sedimentary deposits. On the slope of Pachamalais the soil is shallow, stony dry and without humus; in the plateau it is a deep sandy loam with plenty of humus (Thirumalraj, unpublished).

CLIMATE

The climate of this region is characterised by high temperature and low degree of humidity. The weather is usually sultry from April to June. However, strong cool westerly winds begin to blow on the outbreak of south-west monsoon and make the temperature slightly cooler in the month of July. The mean annual temperature is 27.6° C.

The mean annual rainfall is 125 cm., the maximum being brought about by the north-east monsoon. The south-west monsoon brings only very few showers. There are also occasional intermonsoon thunder showers during the period March to June. The following table shows the monthly average of rainfall at Uppiliyapuram.

AVERAGE FOR 40 YEARS (in mm.)

January	...	...	31.8
February	...	...	8.0
March	...	...	14.0
April	...	...	39.3
May	...	...	97.3
June	...	...	32.3
July	...	...	56.6
August	...	...	94.0
September	...	...	121.8
October	...	...	175.0
November	...	...	146.3
December	...	...	47.5

VEGETATION

The forest of this area is formed by scrub jungle, dry deciduous and dry evergreen types of vegetation.

The forests in the plains and along the slopes of the hills up to an elevation of 400 m. are of the scrub jungle type, mainly composed of thorny shrubs and climbers. The vegetation here is characterised by dominant populations of *Acacia chundra*, *A. latronum*, *A. leucophloea*, *Azima tetracantha*, *Cardiospermum halicacabum*, *Carissa carandas*, *Cissus quadrangularis*, *Dichrostachys cinerea*, *Dioscorea hispida*, *D. oppositifolia*, *Dodonaea viscosa*, *Erythroxylum monogynum*, *Gmelina asiatica*, *Hugonia mystax*, *Pachygone ovata*, *Randia spinosa*, *Scutia myrtina*, *Securinega leucopyrus*, *Pterolobium indicum*, *Zizyphus mauritiana* and *Z. oenoplia*.

The dry deciduous forests occur above 400 m. and the vegetation shows trees like *Anogeissus latifolia*, *Bauhinia racemosa*, *Chloroxylon swietenia*, *Gyrocarpus americanus*, *Mangifera indica*, *Santalum album*, *Strychnos nux-vomica*, *Terminalia arjuna*, *T. chebula* and *T. paniculata*. Most of the species of climbers found at the foot of the hills are also noticed in this region.

The dry evergreen type of forest is mostly confined to the plateau at the top of the hills. The trees here are small in size. There is thick undergrowth of shrubs, herbs and climbers. The vegetation mainly consists of the following species: *Capparis zeylanica*, *Cipadessa baccifera*, *Clematis gouriana*, *Cylista scariosa*, *Dendrocalamus strictus*, *Gnetum ula*, *Jasminum rigidum*, *Lantana camara* var. *aculeata*, *Ligustrum walkeri*, *Mallotus philippensis*, *Mimosa pudica*, *Morinda umbellata*, *Sageretia parviflora*, *Pyrenacantha volubilis* and *Zizyphus rugosa*.

In all a total of 73 families represented by 226 genera, 285 species, native to or naturalized in the forest were found. The families with the largest number of species are: Leguminosae 29, Gramineae 28, Euphorbiaceae 23, Acanthaceae 13, Cyperaceae 13, Verbenaceae 11 and Compositae 10. These seven families contain 42.8 per cent of the total flora of the forest.

The following enumeration includes the locality, frequency, flowering or fruiting stage, date of collection, altitude and the collection number. The plants have been carefully observed in the field and collected on the spot. Identification was effected in the Herbarium of the Southern Circle of the Botanical Survey of India. Merely for the sake of convenience the classification of Bentham and Hooker is followed; the species within a family are arranged in alphabetical order. Every attempt has been made to bring the nomenclature up-to-date (Raizada, 1958, 1959; Santapau, 1953).

ENUMERATION

POLYPODIACEAE

Actiniopteris dichotoma Forsk.

In crevices of rocks, way to Top-Chengattupatti, abundant, in sori (6-8-1958), 433 m., 6159.

Adiantum capillus-veneris Linn.

Foot of Pachamalais, common by the side of water, in sori (13-8-1958), 333 m., 6300.

Cheilanthes mysorensis Wall.

In crevices of rocks, way to Top-Chengattupatti, common, in sori (6-8-1958), 433 m., 6158.

RANUNCULACEAE

Clematis gouriana Roxb.

Way to Top-Chengattupatti, common, in fruit (20-3-1959), 633 m., 7902.

MENISPERMACEAE

Cissampelos pareira Linn.

Way to Top-Chengattupatti, common, in flower (28-10-1958), 475 m., 7008.

Cocculus hirsutus Diels.

Foot of Pachamalais, common, in flower and fruit (26-10-1958), 300 m., 6973.

Pachygone ovata Miers.

Foot of Pachamalais, common, in flower (18-3-1959), 333 m., 7884.

Tiliacora acuminata Miers.

Near Varichettipalayam, few, in flower (12-8-1958), 233 m., 6288.

PAPAVERACEAE

Argemone mexicana Linn.

Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6271.

CAPPARIDACEAE

Cadaba farinosa Forsk. (= *Cadaba indica* Lam.)

Near Sobanapuram, common, in flower (7-8-1958), 300 m., 6206.

Capparis zeylanica Linn.

Way to Top-Chengattupatti, few, in flower (20-3-1959), 633 m., 7903.

Cleome viscosa Linn.

Way to Puliyanchoilai, common, in flower (8-8-1958), 233 m., 6234.

Maerua arenaria Hk. f. & T.

Way to Top-Chengattupatti, common, in flower and fruit (19-3-1959), 400 m., 7897.

VIOLACEAE

Hybanthus enneaspermus (Linn.) F. v. Muell. (= *Ionidium suffruticosum* Ging.)

Sobanapuram, common, in flower and fruit (7-8-1958), 300 m., 6204.

POLYGALACEAE

Polygala chinensis Linn.

Foot of Pachamalais, common, in flower (26-10-1958), 333 m., 6986.

CARYOPHYLLACEAE

Polycarpaea corymbosa Lam.

Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 450 m., 7004.

MALVACEAE

Abutilon indicum G. Don.

Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6278.

Hibiscus vitifolius Linn.

Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6262.

Malvastrum coromandelianum Garcke.

Near Sobanapuram, common, in flower (7-8-1958), 300 m., 6208.

Sida acuta Burm.

Way to Top-Chengattupatti, common, in flower (28-10-1958), 533 m., 7010.

Thespesia populnea Soland.

Way to Puliyancholai, cultivated, in flower (6-8-1958), 233 m., 6180.

TILIACEAE

Corchorus olitorius Linn.

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6179.

Grewia emarginata W. & A.

Near Sobanapuram Rest House, common, in flower (26-10-1958), 333 m., 6972.

LINACEAE

Erythroxylum monogynum Roxb.

Near Sobanapuram Rest House, common, in flower (7-8-1958), 333 m., 6221.

Hugonia mystax Linn.

Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 433 m., 6997.

MALPIGHIACEAE

Hiptage benghalensis (Linn.) Kurz (= *H. madablota* Gaertn.)

Foot of Pachamalais, common, in flower and young fruit (18-3-1959) 333 m., 7891.

ZYGOPHYLLACEAE

Tribulus terrestris Linn.

Way to Puliyancholai, common, in flower and fruit (8-8-1958), 233 m., 6235.

GERANIACEAE

Oxalis corniculata Linn.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6248.

RUTACEAE

Murraya koenigii Spr.

Top-Chengattupatti, common, in bud (20-3-1959), 800 m., 7906.

Pleiospermium alatum (W. & A.) Swingle (= *Limonia alata* W. & A.)

Puliyancholai, few, in flower and fruit (29-10-1958), 333 m., 7048.

Toddalia asiatica Lamk. var. *gracilis*.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6249.

BURSERACEAE

Commiphora caudata Engl.

Way to Top-Chengattupatti, common, in flower (20-3-1959), 500 m., 7899.

MELIACEAE

Azadirachta indica A. Juss.

Near Sobanapuram Forest Rest House, cultivated, in flower (22-3-1959), 333 m., 7943.

RUTACEAE (MELIACEAE B. H.)

Chloroxylon swietenia DC.

Way to Top-Chengattupatti, common, in flower (19-3-1959), 500 m., 7898.

MELIACEAE

Cipadessa baccifera Miq.

Top-Chengattupatti, common, in flower and fruit (9-8-1958), 800 m., 6263.

OLACACEAE

Olax scandens Roxb.

Near Sobanapuram Rest House, few, in flower and fruit (30-10-1958), 333 m., 7076.

OPILIACEAE

Cansjera rheedii Gmel.

Foot of Pachamalais, common, in fruit (18-3-1959), 333 m., 7887.

Opilia amentacea Roxb.

Foot of Pachamalais, common, in bud (21-3-1959), 300 m., 7922.

ICACINACEAE

Pyrenacantha volubilis Hook.

Way to Top-Chengattupatti, common, in flower and fruit (28-10-1958), 733 m., 7023.

CELASTRACEAE

Celastrus paniculata Willd.

Top-Chengattupatti, few, in flower (20-3-1959), 800 m., 7908.

Elaeodendron glaucum Pers.

Foot of Pachamalais, few, in flower (26-10-1958), 333 m., 6984.

RHAMNACEAE

Scutia myrtina Kurz.

Foot of Pachamalais, common, in flower (18-3-1959), 333 m., 7896.

Sageretia parviflora G. Don.

Way to Top-Chengattupatti, few, in flower (28-10-1958), 767 m., 7024.

Ventilago maderaspatana Gaertn.

Foot of Pachamalais, common, in flower and fruit (18-3-1959), 333 m., 7890.

Zizyphus mauritiana Lamk. var. *fruticosa* (Haines) Sehrst. & Henry, comb. nov. (= *Z. jujuba* Lamk. var. *fruticosa* Haines, Bot. Bih. Or. 1238, 1924.

Near Sobanapuram Rest House, common, in flower (26-10-1958), 333 m., 6994.

- Z. mauritiana* Lamk. (= *Z. jujuba* Lamk.)
Foot of Pachamalais, common, in flower (26-10-1958), 300 m., 6976.
- Z. oenoplia* Mill.
Near Sobanapuram, common, in flower and fruit (26-10-1958), 333 m., 6991.
- Z. rugosa* Lamk.
Top-Chengattupatti, common, in flower (20-3-1959), 800 m., 7907.

VITACEAE

- Cissus quadrangularis* Linn.
Foot of Pachamalais, very common, in flower and fruit (13-8-1958), 333 m., 6298.
- C. vitifolia* Linn.
Way to Top-Chengattupatti, common, in flower and young fruit (6-8-1958), 400 m., 6156.

SAPINDACEAE

- Allophylus serratus* Radlk.
Way to Top-Chengattupatti, common, in flower (27-10-1958), 433 m., 6998.
- Cardiospermum halicacabum* Linn.
Foot of Pachamalais, common, in flower (13-8-1958), 333 m., 6297.
- Dodonaea viscosa* Linn.
Foot of Pachamalais, common, in flower and fruit (26-10-1958), 300 m., 6979.
- Sapindus emarginatus* Vahl.
Near Sobanapuram Rest House, few, in bud (26-10-1958), 333 m., 6992.

ANACARDIACEAE

- Mangifera indica* Linn.
Puliyancholai, common, in flower (22-3-1959) 333 m., 7938.

LEGUMINOSAE

- Abrus precatorius* Linn.
Puliyancholai, common, in flower and fruit (29-10-1958), 333 m., 7050.
- Clitoria ternatea* Linn.
Foot of Pachamalais, common, in flower (26-10-1958), 333 m., 6983.
- Crotalaria medicaginea* Lamk.
Way to Top-Chengattupatti, in flower (27-10-1958), 433 m., 6999.
- C. verrucosa* Linn.
Puliyancholai, common, in flower and fruit (29-10-1958), 333 m., 7047.
- Cylista scariosa* Roxb.
Top-Chengattupatti, common, in flower and fruit (20-3-1959), 800 m., 7909.
- Erythrina variegata* Linn. var. *orientalis* (Linn.) Merr. (= *E. indica* Lam.)
In fields, way to Thuraiyur, cultivated, in flower (21-3-1959), 233 m., 7928.
- Indigofera cordifolia* Heyne.
Foot of Pachamalais, common, in flower (12-10-1958), 300 m., 6982.

- I. parviflora* Heyne.
In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7037.
- I. subulata* Vahl.
Way to Top-Chengattupatti, few, in flower (28-10-1958), 700 m., 7016.
- Phaseolus grahamianus* W. & A.
Way to Top-Chengattupatti, common, in flower (28-10-1958), 500 m., 7009.
- Pongamia pinnata* (Linn.) Pierre (= *P. glabra* Vent.)
Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6217.
- Pterolobium indicum* A. Rich.
Foot of Pachamalais, common, in bud and fruit (5-8-1958), 333 m., 6144.
- Tephrosia hirta* Ham.
Way to Top-Chengattupatti, common, in flower and fruit (9-8-1958), 400 m., 6246.
- T. purpurea* Pers.
Near Puliyancholai Rest House, common, in flower and fruit (6-8-1958), 333 m., 6181.
- T. spinosa* Pers.
In fields, Uppiliyapuram, common, in flower and fruit (30-10-1958), 300 m., 7073.
- Zornia diphylla* Pers.
Way to Top-Chengattupatti, common, in flower (27-10-1958), 450 m., 7006.

LEGUMINOSAE

- Caesalpinia crista* Linn.
Puliyancholai, common, in flower and fruit (29-10-1958), 333 m., 7046.
- Cassia auriculata* Linn.
Pachamalai valley, common, in flower and fruit (6-8-1958), 267 m., 6168.
- C. occidentalis* Linn.
Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6260.
- C. senna* Linn. (= *C. angustifolia* Vahl)
Near Sobanapuram Rest House, common, in flower (29-10-1958), 333 m., 7038.

LEGUMINOSAE

- Acacia arabica* Willd.
Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6279.
- A. chundra* (Roxb.) Willd.
Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6147.
- A. concinna* DC.
Way to Top-Chengattupatti, common in flower (9-8-1958), 833 m., 6253.
- A. latronum* Willd.
Foot of Pachamalais, common, in flower and fruit (8-8-1958), 233 m., 6226.
- A. leucophloea* Willd.
Near Sobanapuram, common, in flower (12-8-1958), 333 m., 6291.

Albizia lebbbeck Benth.

Foot of Pachamalais, few, in flower and fruit (18-3-1959), 333 m., 7892.

Dichrostachys cinerea W. & A.

Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6151.

Mimosa pudica Linn.

Top-Chengattupatti, common, in flower (28-10-1958), 800 m., 7027.

M. rubicaulis Lamk.

Puliyancholai, common, in flower (6-9-1958), 333 m., 6184.

COMBRETACEAE

Anogeissus latifolia Wall.

Foot of Pachamalais, common, in flower and fruit (26-10-1958), 333 m., 6989.

Combretum ovalifolium Roxb.

Foot of Pachamalais, common, in flower and fruit (18-3-1959), 333 m., 7889.

Terminalia chebula Retz.

Top-Chengattupatti, few, in flower (20-3-1959), 800 m., 7913.

T. paniculata Roth.

Way to Top-Chengattupatti, common, in bud (9-8-1958), 800 m., 6256.

LYTHRACEAE

Lawsonia inermis Linn.

Near Varichettipalayam, common, in flower and fruit (12-8-1958), 233 m., 6289.

ONAGRACEAE

Ludwigia parviflora Roxb.

In fields, way to Thuraiyur, common, in flower and fruit (21-3-1959), 233 m., 7927.

PASSIFLORACEAE

Passiflora foetida Linn.

Puliyancholai, common, in bud (22-3-1959), 333 m., 7935.

CUCURBITACEAE

Coccinia cordifolia (Linn.) Cogn. (= *C. indica* W. & A.)

Varichettipalayam, common, in flower (12-8-1958), 300 m., 6285.

AIZOACEAE

Glinus oppositifolius Linn.) A. DC. (= *Mollugo oppositifolia* Linn.)

Way to Puliyancholai, common, in flower and fruit (8-8-1958), 233 m., 6233.

Mollugo nudicaulis Lam.

Along the river bank, Puliyancholai, common, in flower (8-8-1958), 333 m., 6238.

M. pentaphylla Linn.

Way to Top-Chengattupatti, common, in flower (6-8-1958), 400 m., 6153.

ALANGIACEAE

Alangium salvifolium Wang.

Foot of Pachamalais, few, in flower (18-3-1959), 333 m., 7894.

RUBIACEAE

Borreria stricta K. Sch.

Near Sobanapuram, common, in flower (29-10-1958), 333 m., 7065.

Dentella repens Forst.

Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6274.

Ixora arborea Roxb. ex. Sm. (= *I. parviflora* Vahl)

Foot of Pachamalais, common, in flower (18-3-1959), 333 m., 7888.

Morinda tinctoria Roxb.

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6169.

M. umbellata Linn.

Way to Top-Chengattupatti, few, in flower (20-3-1959), 500 m., 7901.

Oldenlandia alata Koen.

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6212.

Randia spinosa (Thunb.) Poir. (= *Randia dumetorum* Lamk.)

Foot of Pachamalais, common, in flower and fruit (13-8-1958), 333 m., 6293.

COMPOSITAE

Ageratum conyzoides Linn.

Puliyancholai, common, in flower (6-8-1958), 333 m., 6189.

Bidens pilosa Linn.

Puliyancholai, common, in flower (6-8-1958), 333 m., 6185.

Blumea bifoliata DC.

In cultivated fields, Uppiliyapuram, common, in flower (30-10-1958), 300 m., 7074.

B. obliqua (Linn.) Druce (= *B. amplexans* DC.)

In fields, way to Thuraiyur, common, in flower (21-3-1959), 233 m., 7930.

Eclipta prostrata Linn. (= *E. alba* Hassk.)

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6218.

Notonia grandiflora DC.

Way to Top-Chengattupatti, common, in flower and fruit (6-8-1958), 667 m., 6167.

Spilanthus acmella Murr.

Top-Chengattupatti, common, in flower.

Tridax procumbens Linn.

Sobanapuram, common, in flower (7-8-1958), 300 m., 6202.

Vernonia cinerea Less.

Puliyancholai, common, in flower (6-8-1958), 333 m., 6193.

Vicoa indica DC.

In fields, Uppiliyapuram, common, in flower (30-10-1958), 266 m., 7069.

EBENACEAE

Maba buxifolia Pers.

Foot of Pachamalais, common, in flower (21-3-1959), 333 m., 7921.

OLEACEAE

Jasminum auriculatum Vahl.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6257.

J. rigidum Zenk.

Top-Chengattupatti, common, in flower (20-3-1959), 800 m., 7905.

Ligustrum walkeri Dcne.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 833 m., 6254.

SALVADORACEAE

Azima tetracantha Lamk.

Near Varichettipalayam, common, in flower (12-8-1958), 300 m., 6284.

APOCYNACEAE

Carissa carandas Linn.

Foot of Pachamalais, common, in flower (13-8-1958), 333 m., 6296.

Ichnocarpus frutescens R. Br.

Foot of Pachamalais, common, in flower (26-10-1958), 300 m., 6981.

Lochnera rosea (Linn.) Reichb. (= *Vinca rosea* Linn.)

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6173.

L. pusilla K. Sch.

Near Sobanapuram, common, in flower and fruit (29-10-1958), 333 m., 7062.

ASCLEPIADACEAE

Asclepias curassavica Linn.

Along the river bank, Puliyanchoilai, common, in flower (8-8-1958), 333 m., 6241.

Calotropis gigantea R. Br.

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6170.

Caralluma adscendens R. Br. var. *attenuata* (Wight) Gravely et Mayurnathan (= *C. attenuata* Wt.)

Puliyanchoilai, common, in flower (29-10-1958), 333 m., 7049.

Cryptolepis grandiflora Wt.

Foot of Pachamalais, common, in flower (26-10-1958), 300 m., 6977.

Leptadenia reticulata W. & A.

Near Sobanapuram Rest House, common, in flower (7-8-1958), 333 m., 6198.

Pergularia daemia (Forsk.) Chiov. (= *P. extensa* N.E. Br.)

Puliyanchoilai, common, in flower (8-8-1958), 333 m., 6240.

Sarcostemma brunonianum W. & A.

Way to Top-Chengattupatti, abundant, in bud (6-8-1958), 466 m., 6164.

Secamone emetica R. Br.

Way to Top-Chengattupatti, common, in bud (6-8-1958), 466 m., 6162.

Tylophora indica (Burm.f.) Merr. (= *T. asthmatica* W. & A.)

Near Varichettipalayam, common, in flower (12-8-1958), 233 m., 6287.

LOGANIACEAE

Strychnos nux-vomica Linn.

Near Forest Rest House, Top-Chengattupatti, common, in flower (20-3-1959), 7914.

GENTIANACEAE

Enicostemma verticillatum (Linn.) Engl. (= *E. littorale* Bl.)

Near Sobanapuram Rest House, common, in flower (7-8-1958), 333 m., 6222.

BORAGINACEAE

Coldenia procumbens Linn.

Way to Puliyanchoilai, common, in flower (8-8-1958), 233 m., 6227.

Ehretia laevis Roxb.

Foot of Pachamalais, few, in flower (9-8-1958), 333 m., 6244.

Heliotropium ovalifolium Forsk.

Near Uppiliyapuram, common, in flower and fruit (11-8-1958), 233 m., 6272.

CONVOLVULACEAE

Argyreia bracteata Choisy.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6258.

A. elliptica Choisy (= *Lettsomia elliptica* Wt.)

Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7026.

Evolvulus alsinoides Linn.

Foot of Pachamalais, common, in flower (13-8-1958), 333 m., 6295.

Ipomoea staphylinia R. & S.

Foot of Pachamalais, common, in fruit (18-3-1959), 333 m., 7885.

Rivea hypocrateriformis Choisy.

Near Sobanapuram Rest House, common, in flower (26-10-1958), 333 m., 6993.

SOLANACEAE

Physalis minima Linn.

Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6270.

Solanum indicum Linn.

Top-Chengattupatti, common, in flower and fruit (9-8-1958), 800 m., 6261.

S. nigrum Linn.

In fields, way to Thuraiyur, common, in flower and fruit (21-3-1959), 233 m., 7925.

S. torvum Sw.

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6216.

SCROPHULARIACEAE

Bacopa monnieri (Linn.) Pennell (= *Moniera cuneifolia* Mich.)

Near Sobanapuram, common, in flower (13-8-1958), 333 m., 6292.

Lindernia anagallis (Burm.) Pennell (= *Ilysanthes veronicaefolia* Urban)

Puliyancholai, common, in flower (8-8-1958), 333 m., 6242.

Striga asiatica (Linn.) O. Kuntze (= *S. lutea* Lour.)
Foot of Pachamalais, few, in flower (26-10-1958), 333 m., 6987.

S. euphrasioides Benth.

Foot of Pachamalais, common, in flower (10-8-1958), 233 m., 6266.

BIGNONIACEAE

Dolichandrone falcata Seem.

Near Sobanapuram Rest House, few, in flower and fruit (11-8-1958), 333 m., 6281.

Kigelia pinnata DC.

Sobanapuram, few, in flower and fruit (12-8-1958), 333 m., 6282.

PEDALIACEAE

Martynia annua Linn.

Near Uppiliyapuram, common, in flower and fruit (30-10-1958), 300 m., 7071.

Pedaliium murex Linn.

Along the river bank, Puliyancholai, common, in flower and fruit (29-10-1958), 333 m., 7041.

Sesamum indicum Linn.

Near Sobanapuram, cultivated, in flower and fruit (29-10-1958), 333 m., 7063.

ACANTHACEAE

Andrographis echioides Nees.

Way to Top-Chengattupatti, common, in flower and fruit (6-8-1958), 400 M., 6155.

A. elongata T. And.

Near Forest Rest House, Top-Chengattupatti, common, in flower and fruit (20-3-1959), 800 m., 7915.

Barleria buxifolia Linn.

Near Sobanapuram Rest House, common, in flower and fruit (7-8-1958), 333 m., 6197.

B. nitida Nees.

Way to Top-Chengattupatti, common, in flower and fruit (28-10-1958), 666 m., 7014.

Blepharis maderaspatensis (Linn.) Heyne ex Roth.
(= *B. boerhaviaefolia* Pers.)

Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 433 m., 7001.

Elytraria acaulis Lindl.

Sobanapuram, common, in flower and fruit (11-8-1958), 333 m., 6267.

Justicia diffusa Willd.

Way to Top-Chengattupatti, common, in flower and fruit (6-8-1958), 466 m., 6165.

J. glauca Rottl.

Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 400 m., 6996.

J. tranquebariensis Linn. f.

Way to Top-Chengattupatti, common, in flower and fruit (6-8-1958), 400 m., 6154.

Lepidagathis fasciculata Nees.

Top-Chengattupatti, common, in flower (20-3-1959), 800 m., 7916.

Rungia repens Nees.

Near Uppiliyapuram, common, in flower and fruit (7-8-1958), 300 m., 6213.

Stenosiphonium russellianum Nees.

Way to Top-Chengattupatti, common, in flower and fruit (28-10-1958), 733 m., 7020.

Thunbergia fragrans Roxb. var. *vestita* C.B. Cl.

Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6264.

VERBENACEAE

Clerodendrum inerme Gaertn.

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6172.

Gmelina asiatica Linn.

Foot of Pachamalais, common, in flower and fruit (13-8-1958), 333 m., 6294.

Lantana camara Linn. var. *aculeata* (Linn.) Moldenke (= *L. aculeata* Linn.)

Foot of Pachamalais, common, in flower and fruit (8-8-1958), 300 m., 6225.

L. wightiana Wall.

Near Sobanapuram, common, in flower (29-10-1958), 333 m., 7061.

Phyla nodiflora (Linn.) Greene (= *Lippia nodiflora* Mich.)

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6209.

Premna corymbosa Rott. & Willd.

Foot of Pachamalais, common, in flower (26-10-1958), 333 m., 6985.

Priva cordifolia (Linn.f.) Druce (= *P. leptostachya* Juss.)

In fields, Uppiliyapuram, common, in flower and fruit (30-10-1958), 300 m., 7072.

Stachytarpheta indica Vahl var. *jamaicensis* Trim.

Way to Puliyancholai, common, in flower (8-8-1958), 233 m., 6229.

Symphorema involucreatum Roxb.

Foot of Pachamalais, common, in flower and fruit (18-3-1959), 333 m., 7895.

Vitex altissima Linn. f.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 833 m., 6255.

V. negundo Linn.

Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6150.

LABIATAE

- Anisomeles malabarica* R. Br.
Near Sobanapuram Rest House, common, in flower and fruit (7-8-1958), 333 m., 6220.
- Leucas zeylanica* R. Br.
Puliyancholai, common, in flower and fruit (6-8-1958), 333 m., 6182.
- Ocimum adscendens* Willd.
Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 433 m., 7002.
- O. gratissimum* Linn.
Way to Top-Chengattupatti, common, in flower and fruit (27-10-1958), 450 m., 7005.
- Orthosiphon glabratus* Benth.
Near Uppiliyapuram, common, in flower and fruit (11-8-1958), 233 m., 6276.

NYCTAGINACEAE

- Boerhavia diffusa* Linn.
Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6215.
- Pisonia aculeata* Linn.
Foot of Pachamalais, few, in bud and fruit (18-3-1959), 333 m., 7893.

AMARANTHACEAE

- Alternanthera sessilis* (Linn.) R. Br.
In fields, Uppiliyapuram, common, in flower and fruit (30-10-1958), 300 m., 7070.
- Amaranthus viridis* Linn.
In fields, way to Thuraiyur, common, in flower (21-3-1959), 233 m., 7933.
- Celosia argentea* Linn.
In cultivated fields, Sobanapuram, common, in flower and fruit (7-8-1958), 300 m., 6199.

CHENOPODIACEAE

- Chenopodium ambrosioides* Linn.
Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6259.

POLYGONACEAE

- Polygonum glabrum* Willd.
Puliyancholai, common, in flower (8-8-1958), 333 m., 6243.

ARISTOLOCHIACEAE

- Aristolochia bracteata* Retz.
In fields, way to Thuraiyur, common, in flower (21-3-1959), 233 m., 7923.
- A. indica* Linn.
Foot of Pachamalais, common, in flower (26-10-1958), 300 m., 6975.

LAURACEAE

- Cassytha filiformis* Linn.
Foot of Pachamalais, common, in flower and fruit (5-8-1958), 333 m., 6148.

HERNANDIACEAE (COMBRETACEAE B. H.)

- Gyrocarpus americanus* Jacq.
Way to Top-Chengattupatti, common, in flower and fruit (20-3-1959), 500 m., 7900.

LORANTHACEAE

- Dendrophthoe falcata* (Linn. f.) Etting. (= *Loranthus longiflorus* Desr.)
Near Sobanapuram Rest House, common, in flower (7-8-1958), 333 m., 6224.
- Viscum ramosissimum* Wall.
Foot of Pachamalais, common, in flower (18-3-1959), 333 m., 7886.

SANTALACEAE

- Santalum album* Linn.
Way to Top-Chengattupatti, common, in flower (27-10-1958), 400 m., 6995.

EUPHORBIACEAE

- Acalypha fruticosa* Forsk.
Way to Top-Chengattupatti, common, in flower (28-10-1958), 700 m., 7018.
- A. indica* Linn.
Near Sobanapuram, common, in flower (7-8-1958), 300 m., 6205.
- Chrozophora rotleri* (Geis.) Juss. ex Spr.
Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6277.
- Cleistanthus collinus* Benth.
Way to Top-Chengattupatti, common, in flower and fruit (20-3-1959), 633 m., 7904.
- Croton bonplandianum* Baill. (= *C. sparsiflorus* Mor.)
On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6171.
- Euphorbia geniculata* Ort.
Puliyancholai, common, in flower and fruit (22-3-1959), 333 m., 7939.
- E. hirta* Linn.
In cultivated fields, Sobanapuram, common, in flower (7-8-1958), 300 m., 6201.
- E. hypericifolia* Linn.
In cultivated fields, Uppiliyapuram, common, in flower and fruit (30-10-1958), 300 m., 7075.
- E. thymifolia* Linn.
Puliyancholai, common, in flower (22-3-1959), 333 m., 7934.
- Homonoia riparia* Lour.
Puliyancholai, common, in bud and flower (22-3-1959), 333 m., 7936.
- Jatropha curcas* Linn.
Near Uppiliyapuram, common, in flower and fruit (12-8-1958), 233 m., 6283.
- J. glandulifera* Roxb.
Near Varichettipalayam, common, in flower (12-8-1958), 233 m., 6290.
- J. gossypifolia* Linn.
Way to Top-Chengattupatti, common, in flower (6-8-1958), 433 m., 6157.

Mallotus philippensis Muell.-Arg.

Near Forest Rest House, Top-Chengattupatti, common, in fruit (20-3-1959), 800 m., 7912.

Melanthesa turbinata (Koen. ex Roxb.) Oken (= *Breynia patens* Rolfe)

Puliyancholai, common, in flower (29-10-1958), 333 m., 7051.

Micrococca mercurialis Benth.

Along the river bank, Puliyancholai, common, in flower (8-8-1958), 333 m., 6237.

Pedilanthus carinatus Spr.

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6210.

Phyllanthus maderaspatensis Linn.

Near Sobanapuram, common, in flower (29-10-1958), 333 m., 7066.

P. niruri Linn.

In cultivated fields, Uppiliyapuram, common, in flower and fruit (30-10-1958), 233 m., 7068.

P. simplex Retz.

Way to Top-Chengattupatti, common, in flower and fruit (6-8-1958), 400 m., 6152.

Sebastiania chamaelea Muell.-Arg.

Puliyancholai, common, in flower and fruit (29-10-1958), 333 m., 7053.

Securinea leucopyrus (Willd.) Muell.-Arg. (= *Fluggea leucopyrus* Willd.)

Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6149.

Tragia cannabina Linn. f.

Near Sobanapuram, common, in flower (29-10-1958), 333 m., 7067.

T. involucrata Linn.

Puliyancholai, common, in flower (6-8-1958), 6196.

MORACEAE

Ficus bengalensis Linn.

Near Varichettipalayam, common, in syconium (12-8-1958), 233 m., 6286.

F. glomerata Roxb.

On the river bank, Puliyancholai, few, in syconium (6-8-1958), 333 m., 6183.

F. religiosa Linn.

Along the river bank, Puliyancholai, planted, in syconium (29-10-1958), 333 m., 7058.

F. retusa Linn. var. *nitida* Thunb.

Near Uppiliyapuram, few, in syconium (11-8-1958), 233 m., 6275.

Streblus asper Lour.

Along the river bank, Puliyancholai, common, in flower (8-8-1958), 333 m., 6236.

HYDROCHARITACEAE

Ottelia alismoides Pers.

In a puddle, Top-Chengattupatti, common, in flower (28-10-1958), 800 m., 7028.

ORCHIDACEAE

Habenaria plantaginea Lindl.

Way to Top-Chengattupatti, few, in flower (28-10-1958), 533 m., 7011.

Vanda spathulata Spr.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 833 m., 6251.

LILIACEAE

Sansevieria roxburghiana Schult. f.

Foot of Pachamalais, common, in bud (5-8-1958), 333 m., 6143.

AMARYLLIDACEAE

Curculigo orchiodes Gaertn.

Way to Top-Chengattupatti, abundant, in flower (9-8-1958), 833 m., 6252.

DIOSCOREACEAE

Dioscorea oppositifolia Linn.

Way to Top-Chengattupatti, common, in bud (9-8-1958), 833 m., 6250, 6980, 7021.

D. pentaphylla Linn. var. *linnaei* Pr. & Burk.

Foot of Pachamalais, abundant, in flower (26-10-1958), 300 m., 6974, 6978.

D. tomentosa Heyne.

Way to Top-Chengattupatti, common, in flower and fruit (28-10-1958), 733 m., 7022.

LILIACEAE

Aloe barbadensis Mill. (= *A. vera* Linn.)

Near Sobanapuram Rest House, common, in flower and fruit (30-10-1958), 333 m., 7077.

Asparagus racemosus Willd.

Foot of Pachamalais (northern slope), abundant, in flower (10-8-1958), 233 m., 6265.

Gloriosa superba Linn.

Foot of Pachamalais, few, in flower, (13-8-1958), 333 m., 6299.

Scilla indica Baker.

Sobanapuram, common, in flower (11-8-1958), 333 m., 6268.

COMMELINACEAE

Commelina obliqua Ham.

Way to Top-Chengattupatti, common, in flower (9-8-1958), 800 m., 6247.

C. salicifolia Roxb.

On the way to the top of Pachamalais, common, in flower (6-8-1958), 433 m., 6160.

Cyanotis axillaris R. & S.

Along the river bank, Puliyancholai, common, in flower (29-10-1958), 333 m., 7044.

C. cristata Schult. f.

Puliyancholai, common, in flower (29-10-1958), 333 m., 7054.

PALMACEAE

Phaenix humilis Royle var. *pedunculata* Becc.

Puliyancholai, common, in fruit (22-3-1959), 333 m., 7942.

TYPHACEAE

Typha angustata Bory & Chaub.

Way to Puliyanholai, common, in flower (22-3-1958), 300 m., 7940.

LEMNACEAE

Lemna paucicostata Hegelm.

In paddy fields near Uppiliyapuram, common, in vegetative condition (11-8-1958), 233 m., 6280.

CYPERACEAE

Cyperus difformis Linn.

Puliyanholai, common, in flower and fruit (6-8-1958), 333 m., 6190.

C. exaltatus Retz.

Puliyanholai, common, in flower (6-8-1958), 333 m., 6188.

C. tenuispica Steud.

Puliyanholai, common, in flower (6-8-1958), 333 m., 6194.

Eleocharis capitata R. Br.

Near Sobanapuram Rest House, common, in flower (7-8-1958), 333 m., 6129.

Fimbristylis complanata Link.

Top-Chengattupatti, common, in flower (20-3-1959), 800 m., 7918.

F. dichotoma Vahl.

On the river bank, Puliyanholai, common, in flower (6-8-1958), 333 m., 6187.

F. miliacea Vahl

Puliyanholai, common, in flower (6-8-1958), 333 m., 6191.

F. monostachya Hassk.

Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6146.

Kyllinga monocephala Rottb.

In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7036.

K. triceps Rottb.

Along the river bank, Puliyanholai, common, in flower (29-10-1958), 333 m., 7056.

Mariscus bulbosus C. B. Cl.

Way to Top-Chengattupatti, common, in flower (6-8-1958), 466 m., 6166.

M. dubius Kük.

Foot of Pachamalais, common, in flower (5-8-1958), 333 m., 6142.

Pycnus pumilus Dom.

Puliyanholai, common, in flower (6-8-1958), 333 m., 6195.

GRAMINEAE

Alloteropsis cimicina Stapf.

Along the river bank, Puliyanholai, common, in flower (29-10-1958), 333 m., 7057.

Andropogon pumilus Roxb.

Near Sobanapuram, common, in flower 29-10-1958, 333 m., 7059.

Apluda mutica Linn. var. *aristata* (Linn.) Pilger (= *A. aristata* Linn.)

Puliyanholai, common, in flower (22-3-1959), 333 m., 7937.

Aristida setacea Retz.

Near Puliyanholai, common, in flower (8-8-1958), 233 m., 6231.

Brachiaria remota Haines.

Way to the top of Pachamalais, common, in flower and fruit (6-8-1958), 466 m., 6161.

B. reptans (Linn.) Gardn. & Hubb. (= *Urochloa reptans* Stapf)

Near Sobanapuram, common, in flower (29-10-1958), 333 m., 7060.

B. semiverticillata (Rottl. ex Nees) Alston.

Way to Top-Chengattupatti, in flower and fruit (28-10-1958), 450 m., 7007.

Chloris inflata Link. (= *C. barbata* Sw.)

In cultivated fields, sobanapuram, common, in flower (7-8-1958), 300 m., 6200.

Cymbopogon coloratus (Nees) Stapf.

Way to Puliyanholai, common, in flower and fruit (8-8-1958), 233 m., 6230.

Dichanthium annulatum (Forsk.) Stapf.

Near Uppiliyapuram, common, in flower (7-8-1958), 200 m., 6211.

Digitaria sanguinalis (Linn.) Scop. (= *D. marginata* Link.)

In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7031.

Dinebra retroflexa (Vahl) Panz.

On the bank of Iyyar river, common, in flower (6-8-1958), 267 m., 6176.

Echinochloa colonum (Linn.) Link.

In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7033.

Eragrostis chariis (Schult.) Hitch. (= *E. gangetica* Steud.)

Along the river bank, Puliyanholai, common, in flower (29-10-1958), 333 m., 7042.

E. riparia (Willd.) Nees.

Way to Puliyanholai, common, in flower (8-8-1958), 233 m., 6232.

E. unioides Nees ex Steud.

Puliyanholai, common, in flower (6-8-1958), 333 m., 6192.

Hackelochloa granularis (Linn.) O. Ktz.

In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7034.

Heteropogon contortus (Linn.) Beauv. ex R. & S.

Foot of Pachamalais, common, in flower (26-10-1958), 333 m., 6988.

Iseilema laxum Hack.

In cultivated fields, way to Puliyanholai, common, in flower (29-10-1958), 233 m., 7039.

Panicum psilopodium Trin.

In cultivated fields, Top-Chengattupatti, common, in flower (28-10-1958), 800 m., 7029.

P. repens Linn.

Sobanapuram, common, in flower (7-8-1958), 300 m., 6203.

Paspalidium flavidum (Retz.) A. Camus.

In cultivated fields, Top-Chengattupatti, in flower and fruit (28-10-1958), 800 m., 7032.

Paspalum scrobiculatum Linn.

Along the river bank, Puliyanchoilai, common, in flower (29-10-1958), 333 m., 7043.

Perotis indica (Linn.) O. Ktz.

Near Uppiliyapuram, common, in flower (11-8-1958), 233 m., 6273.

Rottboellia exaltata Linn. f.

In cultivated fields, Top-Chengattupatti, in flower (28-10-1958), 800 m., 7030.

Setaria verticillata Beauv.

Way to Top-Chengattupatti, common, in flower and fruit (28-10-1958), 700 m., 7019.

Sorghum halepense (Linn.) Pers.

Along the river bank, Puliyanchoilai, common, in flower and fruit (29-10-1958), 333 m., 7045.

Sporobolus minutiflorus Link.

Way to Top-Chengattupatti, common, in flower (28-10-1958), 633 m., 7013.

Themeda triandra Forsk.

In cultivated fields, Top-Chengattupatti, common, in flower and fruit (28-10-1958), 800 m., 7035.

ACKNOWLEDGEMENTS

The authors desire to express their thanks to Dr. J. C. Sen Gupta, Ex Chief Botanist and Dr. K. Subramanyam, Deputy Chief Botanist for all encouragement and other members of the Staff of the Southern Circle, Botanical Survey of India, for their help in carrying out this work.

LITERATURE CITED

- RAIZADA, M. B.—Name changes in common Indian Plants. *Indian For.* 84: 467-538, 1958.
 ——— Name changes in common Indian Grasses. *Indian For.* 85: 473-509, 1959.
 SANTAPAU, H.—The Flora of Khandala on the Western Ghats of India. *Rec. Bot. Surv. India* 26(1): 1-396, 1953.
 THIRUMALRAJ, K.—Working Plan of Tiruchirapalli Forest Division from 1-4-1955 to 31-3-1970, 1-70 (unpublished).