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STUDIES ON THE MEDICINAL PLANTS OF KERALA FORESTS

V.P.Krishnan Nambiar
N.Sasidharan
C.Renuka
M.Balagopalan

KERALA FOREST RESEARCH INSTITUTE
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Introduction

The origins of herbal medicine predate all existing records. Ancient Indian knowledge on medicinal plants was wide and comprehensive. Vedic literature stands to the proof of their vast knowledge on herbal medicines. Although the ancient systems of herbal medicine was prevalent throughout the country, it suffered a severe set back with the introduction of Allopathy. But currentty there is a reawakening which has resulted in a more scientific approach to the Vedic days store of knowledge of medicinal plants.

A good number of medicinal plants are found mentioned in the ancient classical Ayurvedic texts 'Charaka Samhita'. 'Susruta Samhita' and 'Astanga Hrdaya Samhita'. But many of them still remain to be properly identified. During the process of urbanization the contact with plants in their natural habitat was lost, creating confusion in the correct identity of many plants. The indiscriminate use of Sanskrit names and synonyms in later publications which are not given in the ancient treatises, added to this problem. Moreover many irregularities have crept in, in the identity of raw material due to wrong interpretations of the Sanskrit names of medicinal plants. Therefore, medicinal plants differ according to the practitioners. Moreover the preference for the use of traditional plants by them has also led *to* the use of different plants in various regions under the same Sanskrit name.

The descriptions provided in the ancient treatises are hardly sufficient to confirm the identity of various drug plants, For the common drug plant *'Kuruntotti'* three names, viz. *bala. athibala* and *nagabala* can be found. All of them are species of *Sida.* When there are **11** species of *sida* in South India. only with the help of an excellent key based on floral characters or with the aid of authentic specimens these species can be correctly identified. When used as a raw drug it *is* quite difficult to identify the roots *of* these species based on the morphological characters. No conclusive phytochemical study has been carried out to establish which species of *Sida* has the most beneficial alkaloid. In the absence of such a study, it is arbitrary if an Ayurvedic practitioner prefers a particular species as the source of *'Kuruntotti'.* Apart from the species of *Sida,* species of *Pavonia* are also used as *Kuruntotti.* Thus the first and foremost task in Ayurveda is to establish the correct identity of drug plants.

The destruction and degradation of natural habitats of medicinal plants have led to diminished supply of these valuable raw materials. The poor availability has also resulted in adulteration of raw drug. An example is that of ***Kuvalam (Aegle marmelos)*** which is of very rare occurrence in Kerala forests. The roots of ***Toddalia asiatica*** and species of *Limonia* are collected in large quantities and sold as ***Kuvalam.*** One of the effective ways to check the use of adulterants is to cultivate the much needed drug plants.

Forests of Kerala are endowed with a large number of medicinal plants. An authentic publication on this integral component of forest resources is still lacking and therefore very little information is available on the medicinal properties of many species. The shrinking habitat of the medicinal plants and the ever increasing demand for the raw drugs pose great threats to some species that are in the verge of extinction. Intensive studies on indigenous medicinal plants and germplasm collection of the various species are therefore very effective.

With all these background information, and having realised that the habitat of medicinal plants is and will continue to be the forests, this project was initiated, This report relates to the fulfilment of the objectives of providing correct botanical identity, resolving nomenclatural confusion and compiling information on the medicinal uses.

A checklist of the medicinal plants of Kerala forests was prepared from Ayurvedic texts and Floras. The checklist also included some exotics naturalized in the state and are frequent in forest plantations and forest clearings. Field trips were conducted to various forest areas for the collection of medicinal plants with the help of people engaged in the collection of medicinal plants. Collection of herbarium specimens. raw materials and live 'plants for the medicinal plant garden in the Institute were made. Comparative studies were also made with raw drugs materials collected from various pharmaceutical agencies. The habitat and field characters were studied and these information were also documented. The materials collected were identified with pertinent literature and authentic specimens. The local names of the medicinal plants were obtained from the pecple engaged in the collection of drug plants and from literature. The Sanskrit'names were obtained from published literature and by consulting Sanskrit scholars. The medicinal properties and uses were compiled from ayurvedic texts. These were supplemented with information collected from Ayurvedic practitioner- and Tribals.

The species are arranged in alphabetic sequence under respective plant families. The families are arranged according to the system of classification of flowering plants by Bentham and Hooker. The correct botanical name appears in bold face followed by important synonyms, if any, in italics. The local

name (s) and Sanskrit name(s) are given whenever known. The distribution of the plants in Kerala is given by forest types according to the system of classification of forest types by Champion and Seth (1968). Whenever a species is confined only to a particular area; it is specified; otherwise it indicates occurrence throughout Kerala in the type of forests mentioned. A brief description of the plant is provided to facilitate identification in the natural habitat. Photographs have been provided for some species. the height of the trees described as small, medium and large are indicative of the size range: trees below 10 m high as small, 11-25 m as medium and above 25 m as large. The medicinal properties and uses are given under separate heads. A glossary of medicinal terms used in the text has been provided. Separate index for Botanical names, Malayalam names and Sanskrit names have been appended for easy reference.

About 250 species of plants collected for the project as well as the medicinal plants obtained from other sources are maintained in the Medicinal plant garden of the Institute. The raw materials collectad for comparative studies were identified and kept as a reference collection in the Institute. The herbarium specimens of the medicinal plants prepared were incorporated in the Institute herbarium.

In order to ascertain the views and problems of Ayurvedic practice and research, a state level seminar on Medicinal plants was organized in the Institute during December 1981. Nearly 100 delegates including leading Ayurvedic practitioners and academicians participated in the Seminar. The papers presented stressed mainly on two aspects, one on the shortage of raw drugs and the other the need for standardization of the drug plants. The proceedings of the seminar was published in 1982.

Ranunoulaceae

Clematis gouriana Roxb.

Mal : Nikida Kodi

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests above 400 m elevations.

Soil requirements : Rich and deep loamy soil with good drainage.

Description : A climbing shrub reaching to the top of trees, stem vertically grooved. Leaves opposite bipinnate or tripinnate; leaflets ovate or oblong, acuminate, entire or remotely Toothed, rounded or cordate at the base, 2.5-10 x 1.5-3.5 cm. Flowers yellowish or greenish white. in much branched panicles. Fruit a head of ovoid achenes with long feathery tails.

Uses : Bruised stem and leaves when applied to the skin cause desication. The root is with pungent aromatic smell. The fresh root is crushed and inhaled to get relief from cold by the Tribals of Attappady.

Dilleniaceae

Dillenia indica Linn.

Syn. *D. speciosa* T hunb.

Mal : Syalitha

Distribution: Reported to occur in Southern moist mixed deciduous forests in North Kerala. Occasionally planted in temple compounds and in households as an ornamental tree.

Description : Small to medium sized tree; bark reddish grey, smooth. Leavessimple, fascicled at the ends of branchlets, oblong-lanceolate. acute, serrate, 15-30 x 7-10 cm; petiole winged. flowers white, solitary. about 10 cm in diameter. Fruit globose, subtended by the thickened sepals, about 8 cm in diameter.

Properties : Bark and leaves are astringent. Fruit is said to possess tonic and laxative properties.

Uses: Bark is reported to be useful in the treatment of arthrites (Van Reede. 1678). It is also used as an expectorant. A cooling beverage prepared from fruits is administered for fevers.

Tetracera akara (Burm.f.) Merr.

Syn. *T. laevis* auct. non Vahl

Mal : Nennelvalli

Distribution : West coast tropical evergreen forests.

Description : A climbing shrub with angular branches. Leavas simple, alternate, oblong or lanceolste. entire or remotely toothed, 7-12 cm long. Ftowers white, in few to many flowered terminal panicles. Fruit an aggregate of several coriaceous follicles with 1-2 arillate seeds.

Uses : Oecoction of leaves mixed with rice-gruel is given in the treatment of aphthae.

Magnoliaceae

Michelia champaca Linn.

Mal : Champakam

San : Champaka

Distribution : Occasional in West coast tropical evergreen furests.

Soil reqirements: Deep moist loamy, medium acidic soil.

Description : Large evergreen tree; bark grey, smooth. Leaves simple, alternate, ovate-lanceolate, acuminate. 15-22 x 5-8 cm. Flowers

solitary, axillary, yellow, about 5 cm in diameter. Fruit an aggregate of follicle; seeds 1-10. pendulous.

Properties : Bark of the tree is considered as a stimulant, febrifuge, expectorant, astringent, anthelmintic, diuretic, diaphoretic and aphrodisiac, Flowers and fruits are stimulant, antispasmodic. stomachic, carminative, diuretic, bitter and cooling. Dried root and root bark are used as purgatives and emmenagogue.

Uses : Bark in decoction is given with much benefit in low intermittent fevers and mild cases of chronic gastritis. It is used in the treatment of bile and blood afflictions also. Leaf juice is used in colic. Flowers are useful in the treatment of rheumatism and oil from flowers provide an useful application in cephalalgia, ophthalmic and gout. Both flowers and fruits are used in the treatment of dyspepsia, nausea, fever and vertigo. Seeds and fruits are used for healing cracks in feet. Oil of the seeds rubbed over the abdomen relieves flatulence. Decoction or powder of root and bark with sugar is given as a remedy in phlegm, biliousness, leprosy. ulcers, and bladder stones. A decoction of the root is used in cases of unconscious micturition (Mooss. 1978). Root and root bark mixed with curdled milk is applied to cure abcesses.

Michelia nilagirica Zenk

Mal : Kattuchampakam

Distribution : Confined to Southern montane wet temporate forests at Munnar.

Soil requirements : Strongly acidic soil. clay loam, high in organic carbon.

Description : A small to medium sized tree: bark brown with shallow fissures. Leaves simple. alternate. elliptic, acuminate. Flowers white, axillary, solitary. Fruit of many follicles, each about 1.5 cm in diameter with 1-2 scarlet seeds.

Property : Bark and Leaves are considered as febrifuge.

Annonaceae

Sageraea dalzellii Bedd.

Syn. *Bocagea dalzellii* Hook. f. & Thoms.

Mal : Manjaniara, Kanakaitha

Distribution : West cost tropical evergreen and West coast semievergreen forests.

Soil requirements : Sandy loam soils with good drainage. medium acidic.

Description : A large tree with straight trunk: bark blackish, smooth, Leaves simple. alternate, narrowly elliptic, glossy, 10-30 x 4-10 cm. Flowers yellowish, axillary or fascicled on woody tubercles. Fruit of **3-5** globose, green carpels.

Properties : Leaves are bitter, astringent and pungent.

Uses : Leaves are used for fomentation.

Uvaria narum (Dunal) Wall. ex Wight & Arn.

Mal : Narumpanal

San : Neelalalli

Description : Occasional in the Southern dry mixed deciduous forests. Also common in the forests associated with temples or 'kavu'

Soil requirements : Sandy loam soil with loose structure, good drainage.

Description : A large woody climber. Leaves simple, alternate,

oblong-lanceolate.acute or acuminate, 7-12 x 2-3cm Flowersreddish, solitary. Fruit of numerous carpels.

Uses : Leaves are recommended in rheumatic swellings, jaundice, billiousness and fevers. Root is used in the treatment of jaundice, fever, billiousness and typhoid. Adecoction of the root bark is given to women to control fits at the time of delivery. It is also used in rheumatism. bowel complaints of Children and for eczema. Oil Bxtracted from the root. reduces burning sensation of the livet (Van Reede, 1678).,

Menispermaceae

Anamirta cocculus (Linn.) Wight & Arn.

Syn. *A. paniculata* Colebr.

Mal : Polla, Karantakam, Nanchuvalli.

Distribution :West coast tropical evergreeh and West coast semievergreen forests.

Soil requirements : Loamy soils with good drainage, medium acidic, low in potash. very low in phosphate and high in organic carbon.

Description : A large climbing shrub. Leaves simple, alternate, broadly ovate-cordate. 12-20 x 8-12 cm. Flowers small, creamy white, in large panicles drooping from nodes of mature stem. Fruit a drupe. obliquely ovoid, about 1-2 cm in diameter, white.

Properties : Leaves are antipyretic. Fruit is considered to be an expectorant.

Uses : Fruit is used in the treatment of rheumatism. Dried fruit is a powerful narcotic and an antidote for morphine and chloral poison. Juice of fresh fruit is appiied to foul ulcers and scabies. The active principle. picrotoxin. from seeds is usdd to a limited extent to control nightsweats in phthisis. It is also useful in the convulsion treatment of schizophrenia (Martindale, 1941-43).

Cissampelos pateira Linn.

Mal : Malathangi

Distribution : Southern moist mixed deciduous forests. Occasional in scrub jungles.

Soil requirements : Loamy soils with good drainage medium acidic, low in potash and phosphate and high in organic carbon.

Description : A slender climbing shrub. Leaves simple. alternate. orbicular or reniform.cordate at base, pubescent below, 2.5-8 cm in diameter. Flowers small. greenish, in axillary racemes. Fruit globose. about 0.5 cm in diameter. scarlet. (Plate II Fig 1)

Properties : Root is bitter. antiperiodic, diuretic. purgative and stomachic. Root with bark exercise astringent and sedative action on the mucous membranes of genito-urinary organs.

Uses : Leaves are used in the treatment of venereal diseases and heart complaints. Root is given for cough, dyspepsia, diarrhoea, cystitis. dropsy, and prolapsus uterus.

Cocculus hirsutus (Linn.) Diels

Syn. *C. villosus* (Lamk.) DC.

Mal : Pathalagarudakkodi

San : Pathalagarudi. Mahamoolam

Distribution : Southern dty mixed deciduous forests. Also seen growing among the bushes in villages.

Description : A straggling shrub with villous branchlets. Leaves simple, alternate. ovate. obtuse at base. softly pubescent, 4-7 x 2-4.5 cm. Flowers small, pale yellow; male flowers in axillary cymose panicles; female in axillary fascicles. Fruit black purple; seeds tubercled.

Properties : Root is refrigerant-blood purifier. laxative, sudorific and alterative. It is also used as a tonic,

Uses : Leaf juice is taken internally for gonorrhoea and is used externally for eczema, prurigo and impetigo, Root is used in the treatment of chronic rheumatism and venereal diseases.

Coscinium fenestratum (Gaertn.) Colebr.

Mal : Maramanjal

San : Daruhareedra

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Variety of soils with good drainage medium slightly acidic

Description : A climbing shrub: bark yellow, with shallow fissures. branches pubescent. Leaves simple. alternate, suborbicular, subpeltate. 12-17 x 10-15 cm, pubescent below. Flowers small, green, in globular heads Fruit subglobose, villous. abcut 1 cm in diameter. (Plate II, Fig. 3)

Properties : A tincture of wood is said to possess antiseptic properties. Root is aphrodisiac. antipyretic. antiseptic and stomachic.

Uses : Tincture of wood is used for dressing wounds and ulcers. Decoction of bark, which is used as a substitute for cinchona, is given in case of intermittent fevers, debility and dyspepsia. Root is used in the treatment of diabetes and excessive bleeding.

Cyclea peltata (Lamk.) Hook. f. & Thoms.

Mal : Padakizhangu, Padathali

San: Pada

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous forests and occasionally in scrub jungles.

Soil requirements : Sandy loam soils with good drainage slightly acidic.

Description : A slender, climbing. pubescent shrub. Leaves simple, alternate, ovate-peltate, 6-12 x 4-9 cm. pubescent. Flowers small, greenish, in axillary panicles. Fruit white, globose, about 0.5 cm in diameter.

Uses : Crushed leaves are applied to wounds to stop bleeding. Root is a good nervine tonic. It is used for a variety of ailments like dysentery, piles. flatulence, jaundice, stomachache, fever, leprosy, liver complaints, poisoning, asthma and clotting of blood in the abdomen.

Diploclisia glaucescens (Bl.) Diels

Syn. *Cocculus macrocarpus* Wight & Arn.

Mal : Vatoli

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Description : A large woody climber. Leaves simple, rounded, usually broader than long, 5-10 x 6-11 cm, margins thickened, glabrous. Flowers small, yellow, in panicles. arising from mature stem. Fruits

obovate oblong, about 2 cm long. (Plate II Fig.2)

Uses : Powdered leaf with milk is given for biliousness, syphilis and gonorrhaea.

Tinospora cordifolia (Willd.) Miers ex Hook. f. & Thoms.

Syn. *Menisperrnum cordifolium* Willd.

Cocculus cordifolius (Willd.) DC.

Mal : Chittamrthu. Amrthu

San : Amrtha, Guluchi

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Loam to sandy loam soils with good drainage. slightly acidic and medium in organic carbon.

Description : A climbing shrub; bark papery at first, becomes corky and deeply spirally cleft when old, grey or creamy white. Leaves simple, alternate. orbicular - cordate, 5-7.5 cm in diameter, glabrous. Flowers smalt. greenish - yellow, in dense racemes.

Properties : Juice of fresh plant is diuretic. Stern is astringenf to the bowels, stomachic, antiperiodic, antipyretic. expectorant, alterative and aphrodisiac,

Uses : The plant is used against general debility, dyspepsia, fevers and urinary diseases. A preparation frcm the plant is used by the tribals in Bihar to treat fractures. Plant juice is recommended for gonorrhoea. The stem is used in the treatment of giddiness. piles, anaemia, diabetes, vaginal and urethral discharges and enlarged spleen. A kind of starch prepared from the aquous extract of the stem is used as a tonic and is given in several diseases causing debility. Fruit is given for jaundice and rheumatism.

Tinospora sinensis (Lour..) Merr.

Syn. *T. malabarica* (Lamk.) Miers

Cocculus malabaricus DC.

Mal : Kattamrthu, Pottamrthu. Peyamrthu

Distribution : Southern moist mixed deciduous and West coast semievergreen forests, mostly confined to central and northern Kerala.

Description : A climbing shrub, young branches covered with white hairs. Leaves simple, ovate-acuminate, cordate; palmately 7-nerved, 10-15 x 7.5-12cm, 'pubescent on both sides. Flowers greenish. in dense racemes.

Uses : Plant is considered to be a tonic. In China fresh leaves and stems are used in the treatment of chronic rheumatism. In Kerala this is not commonly used as it is considered therapeutically nferior (Mooss. 1977).

Capparidaceae

Capparis grandis Linn. f.

Distribulion : Southern dry mixed deciduous and Dry teak bearing forests.

Soil requirements : Sandy soils, very slightly acidic. medium in potash and very high in phosphate.

Description : A small tree, young shoots tomentose. Leaves simple. alternate, elliptic-ovate. obtuse. velvety an both sides. Flowers creamy white, in many flowered terminal corymbs. Fruit Purple. subglobose. about 4 cm in diameter, 2-6 seeded

Uses : Infusion, of bark and leaves is used internally for swellings and eruptions.

Crateva nurvala Buch. - Ham.

Syn. *religiosa* Hook. f. & Thoms.

Mal : Neermathalam

San : Varana

Distribution : Occasional in Southern moist mixed deciduous and West coast semievergreen forests, mostly confined to banks of streams.

Soil requirements : Loamy soils slightly acidic, medium in potash and low in phosphate.

Description : A small to medium sized tree; bark grey, with longitudinal wrinkles. Leaves trifoliolate; leaflets long acuminate, elliptic, 5-15 x 3-6.5 cm. Flowers white, in terminal showy racemes. Fruit a berry, globose or ovate, 2.5-4.5 cm in diameter.

Properties : Bark is demuicent, stomachic, laxative, diuretic. antipyretic and alterative. It has a stimulating action on the liver. Flowers are astringent and cholagogue. Fruit is laxative. Root increases the secretion of bile.

Uses : Bark of the tree is useful in the treatment of calculus affections and disorders of urinary organs. It is reported to be a contraceptive. (Jain. 1965) Decoction of the bark is used for relaxation and flatulence.

Violaceae

Hybanthus enneaspermus (Linn.) F. v. Muell.

Syn. *Ionidium suffruticosurth* (Linn.) Ging

Mal : Orilathamara, Kalthamara

Distribution : Southern moits mixed deciduous forests. Also seen in forest plantations.

Description : A small herb. Leaves simple, alternate, linear or (anceolate, 3.5 x 0.3-0.8 cm. Flowers red, solitary, axillary. Fruit subglobose, 0.5 cm in diameter.

Properties : Plant is reported to possess tonic. diuretic, and demulcent properties.

Uses : Plant is used In the treatment of urethral discharges, diseases of blood, vomiting and epileptic fits. In Africa the plant is added to the food of pregnant and parturient wdmen (Dalziel, 1948). With oil, the Eaves and tender stalks are used In preparing a cooling liniment for the head. Root is given in cases of bowel complaints of children. It is also administered as an infusion in gonorrhoea and urinary afflictions.

Viola betonicifolia J. E. Sm.

Syn. *V. patrinii* auct. non Ging

Distribution : Southern mohtane wet scrub and Southern montane wet grasslands.

Soil requirements : Clay loam soils loose, strongly acidic high in organic carbon.

Description : A slender herb. Leaves radical, simple, triangular-ovate, serrate, 7-12 x 1.5-4 cm, petiole long. Flowers lilac, about 1 cm in diameter on slender pedicels.

Uses : Plant juice is applied to ulcers and foul sores. It is also recommended against syphilis and biliousness. The Chinese and Malayans use the flowers for purification of blood. In Chinese medicine it is recommended against Cancer. The

dried flowers are used as a purgative. Mixed with tea they are used against cold and cough. Large quantities of floweres are used in Unani medicines.

Viola pilosa Bl.

Syn. *V. serpens* Wall, ex Roxb.

Distribution : Southern montane wet scrub and Southern montane wet grassland.

Soil requirements: Clay loam soils, loose, strongly acidic.

Description : A stoloniferous herb. Leaves simple, ovate, cordate. crenate. 2.5-5 cm in diameter, long petioled. Flowers pale blue, axillary, long pedicelled.

Properties : Plant is antipyretic, diaphoretic and febrifuge. Flowers are demulcent and emolient. Root is emetic.

Uses : Flowers are used in the treatment of biliousness and lung trouble.

Cochlospermaceae

Cochlospermum religiosum (Linn.) Alston

Syn. C. gossypium DC.

Mal : Appakudukka. Seema-panjimaram

San: Girisanmalika

Distribution . Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Soil requirements : Red loamy slightly acidic soil.

Description : A small deciduous tree with stout spreading branches; bark grey, thick. Leaves palmately 5-lobed, greyish-white tomentose beneath. Flowers yellow, 8-12 cm in diameter, in terminal panicles. Fruit a large brown pear-shaped, leathery capsule, 3-8 cm long, containing numerous seeds surrounded by pale brown cottony hairs.

Properties: The gum obtained from the tree is cooling and sedative. Leaves and flowers are stimulant.

Uses: Gum is used in the treatment of eye diseases. It is also recommended for softening the skin.

Flacourtiaceae

Casearia elliptica Willd.

Syn. C. *tomentosa* Roxb.

Distribution : West coast semi-evergreen and West coast tropical evergreen forests.

Soil requirements : Variety of soils. well drained medium to slightly acidic.

Description : A small deciduous tree with horizontal branches; bark dark brown. peels off in rectangular flakes in old trees. Leavas simple, alternate. oblong or lanceolate. serrate, sometimes entire. gland dotted. 6-17 x 3.5-4.5cm. Flowers small, in axillary clusters. Fruit fleshy, oblong, yellow, about 2 cm long.

Properties : Bark is bitter. Pulp of the fruit is diuretic.

Uses: Bark is used for external application in dropsy.

Casearia esculenta Roxb.

Mal : Malampavatta

San : Bhuthagandhii

Distribution : Southern moist mixed deciduous and West coast semieveigrean forests.

Soil requirements : Variety of soils, loam to sandy loam, slightly acidic, medium in organic carbon.

Description : A small tree; bark green, mottled with white, smooth. Leaves simple, alternate, elliptic-oblong or tanceolate. acute or acuminate, entire or distantly serrate, 7.5-15 x 3.5-7.5 cm. Flowers small. in axillary clusters. Fruit a capsule, about 1.2 cm long, orange-yellow.

Properties : Root is astringent, cathartic. antipyretic and alexiteric.

Uses : Root is used against leucoderma, diseases of blood, bronchitis, asthma and halucinations.

Hydnocarpus macrocarpus (Bedd.) Warb.

Syn. *Asteriastigma macrocarpa* Bedd.

Mal : Malankummatti

Distribution : West coasttropical evergreen and West coast semievergreen forests of Central and Southern Kerala.

Soil requirements : Clay loam soil with good drainage, slightly acidic, medium in potash and low in phosphate.

Description : A large evergreen tree. Leaves simple, alternate, oblong, acute, entire, very glossy and dark green above, pale beneath, 15-20 x 6-10 cm. Flowers white, about 2.5 cm in diameter. Fruit woody, globose, dark brown, 12-15 cm in diameter.

Uses : Oil from seeds is believed to be a valuble medicine for skin diseases.

Hydnocarpus pentandra (Buch.-Ham.) Oken

Syn. *H. laurifolia* (Dennst.) Sleumer

H. wightiana Bl.

Mal : Marotti

Distribution : West coast tropical evergreen. West coast semievergreen and southern moist mixed deciduous forests,

Soil requirements : Variety of soils with good drainage medium to slightly acidic.

Description : A targe tree, stem often fluted; bark pale brown with white or grey patches. Leaves simple. alternate, oblong, acuminate crenufate, 12-25 x 3.5-7 cm. Fruit globose. woody with tubercles, 5-10 cm in diameter.

Uses: Oil from seeds is used in the treatment of leprosy and other cutaneous diseases. It is also given for ophthalmia and dysentry. This oil is considered to be therapeutically superior among the chaulmoogra oils (Oil of *Hydnocarpus* and some other Flacourtiaceae are commonly known as chaulmoogra oils):

Pittosporaceae

Pittosporum nepalensis (DC.) Rehedr & Wilson

Syn. *P. floribundum* Wight & Arn.

Mal : Kachapatta.

Distribution : Southern montane wet scrub and Southern montane wet temperate forests.

Soil requirements : Clay loam soil loose, strongly acidic and high in organic carbon.

Description : A small evergreen tree with short spreading branches; bark thin, light greenish-grey, lenticellate. Leaves simple. crowded towards the tips of branches, elliptic-oblong, acute or acuminate, 7-12 x 3-5 cm. Flowers yellowish in race-

mose or short panicles. Fruit woody, 0.5-1.2 cm in diameter. 6-seeded.

Properties: Bark when freshly cut, emits a ginger like smell. It is reported to possess expectorant. febrifuge and narcotic properties. The extract of the stem bark has anti-bacterial and antifungal properties. Oil from the seeds is alterative. tonic and stimulant.

Uses : Bark of the tree is used against chronic bronchitis. Oil from seeds is specific for certain skin diseases. It is used as a local application in rheumatism. ophthalmia, sprains and bruises, sciatica, leprosy and secondary syphilis. Bark is used as an antidot to snake poison.

Polygalaceae

Polygala arvensis Willd.

Syn. *P, chinensis* auct. non Linn.

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Sandy loam medium acidic soil with good drainage medium in potash. low in phosphate and organic carbon.

Description : A small herb, roots aromatic. Leaves simple, alternate, obovate to linear-oblong, glabrous or pubescent. 1-3 cm long. Flowers yellowish. in few flowered axillary racemes.

Uses : An infusion of the leaves is prescribed for asthma, chronic bronchitis and catarrhal afflictions. The root is recommended for fever and dizziness. They are reported to possess antiseptic properties .

Polygala sibirica Linn.

Distribution : Southern montane wet grasslands and Southern montane wet scrub jungles,

Soil requirements : Grows in dry rocky and gravelly areas and dry woods at higher altitudes.

Description : A small herb, roots aromatic. Leaves simple, alternate, linear-oblong, 1-2 cm long. Flowers yellowish or pinkish, in short few flowered axiltary racemes.

Uses: Leaves are used against spermatorrhoea. A decoction of the root is given as an expectorant in cold and cough and bronchitis. It is also used for amnesia. impotency and seminal losses.

Caryophyllaceae

Drymaria cordata (Linn.) Willd. ex Roem. & Schult.

Distribution : Southern hill-top tropical evergreen forests, mostly seen in shady places. Also seen in tea plantations as a weed.

Soil requirements : Strongly acidic loamy soils with high moisture retentivity.

Description: A slender diffuse, glabrous herb. Leaves simple, orbicular-cordate. 1-2 cm long. Flowers small, greenish. in terminal and axillary panicles.

Properties : Plant juice is laxative and antifebrile.

Polycarpea corymbosa (Linn.) Lamk.

Mal : Akkaramkolli

Distribution : In Scrub jungles and in Forest plantations.

Description : A small erect herb 12-40 cm high. Leaves linear. verticillate. 1-2 cm x 2-3 mm. Flowers small, in terminal corymbose cymes.

Uses : Plant is administered both internally and externally as a remedy for sneke bites, Pounded leaves are used as a poultice over boils and inflammatory swellings. It is given with molasses in jaundice. In Malaya, the flowering head along with the portion of stem and leaves is used as demulcent and astringent (Dalziel. 1948).

Stellaria media (Linn.) Vill.

Distribution : Southern montane wet scrub forests. Also in open areas at higher elevations.

Soil requirements : Sandy clay loamy soil, medium acidic high in potash. medium in phosphate and high in organic carbon.

Description : A small heib. Leaves simple, opposite, elliptic or lanceolate, 1-2.5 cm long. Flowers small, white. many in terminal dichotomous cymes.

Properties : The plantis cooling and binding. In Spain it is used as vulnerary. astringent and resolvent.

Uses: The plant is used to plaster broken bones and swellings. The plant is said to be very useful in inflammations of tho digestive, renal. respiratory and reproductive tracts as it has a strengthening and soothing action on mucus and dermoid surfaces. It is also useful in severe inflammations of skin and eyes. The leaves are reported to be rich in vitamin A and C. (Wealth of India. 1976).

Hypericaceae

Hypericum japonicum Thunb. ex Murr.

Distribution : Southern montane wet scrub and Southern montane wet temperate forests.

Soil requirements : Clay loam soil with plenty of humus, slightly acidic low in potash and very low in phosphate.

Description : Annual herbs, stem 4-angled. Leaves simple, elliptic or ovate, auricled at base, 3 - nerved, sessile 6-10 x 3-5 mm Flowers yellow, about 0.6 cm in diameter, in terminal cymes.

Uses: In China and Indo-China the plant is used as an alterative. and astringent. (Kirtikar & Basu, 1935) In Madagascar. it is used against asthma and dysentery. (Burkill, 1935).

Clusiaceae

Calophyllum apetalum Willd.

Syn. *C. wightianum* Wall. ex Planch. & Triana

C. decipiens Wight

Mal: Cherupunna

Distribution : West coast tropical evergreen forests.

Soil requirements : Loamy soils. medium acidic. medium in potash. low in phosphate end organic carbon.

Description : A moderate sized tree; bark yellowish brown, with vertical fissures. Leaves simple. opposite, ovate-oblong glossy. with numerous parallel lateral veins 5-9 x 3-5 cm. Flowers in axillary racemes. Fruit about 2 cm long, ellipsoid. apiculate, red when ripe.

Properties : Oil from seed is antiphlegmatic and anodyne.

Uses: Oil from seeds is used to treat leprosy, cutaneous afflictions, scabies and rheumatism.

Calophyllum polyanthum Wall. ex Choisy

Syn. C. elatum Bedd.

C. tomentosum auct. non Wight

Mal : Kattupunna

San : Vanapunnaga

Distribution : West coast tropical evergreen. Southern hill-top tropical evergreen and West coast semievergreen forests.

Soil requirements : Sandy loam soils.

Description : A lofty tree, unbranched for a great height; bark deeply fissured, yellowish brown. thick. Young twigs tomentose leaves simple, opposite oblong-lancedate. acuminate; lateral nerves numerous and parallel, 7-12 x 3.5 cm. Flowers in panicles. terminal or from the axils of upper leaves. Fruit obliquely ovoid. 2cm long.

Properties : Gum is reported to be feebly astringent.

Garcinia gummi-gutta (Linn.) Robs.

Syn. *G. cambogia* (Gaertn.) Desr

Mal : Pinampuli, Kodampuli

Distribution : West coast tropical evergreen forests.

Soil requirements : Loamy soils, strongly acidic with high organic carbon,.

Description : A moderate sized evergreen tree; bark surface black. rough, when cut exudes a yellow exudation. Leaves simple, opposite, lanceolate to ovate 5-12 **x** 1.5-3.5 cm. Flowers yellowish, axillary or from the axils of fallen leaves. Fruit globose. with vertical furrows. 5.7 cm in diameter, reddish or yellow.

Properties : The fruit possesses antiseptic properties. The resin from the tree possesses purgative properties (Chandrasena. 1935)

Uses : A decoction of the fruit rind is useful in the treatment of rheumatism. bowel complaints, piles and disorders in the womb.

Garcinia indica Choisy

Mal :Marappuli, Pinarpuli

Distribution: West coast tropical evergreen forests.

Soil requirements : Loam and sandy loam, strongly acidic and high in organic carbon

Description :A siender tree with drooping branches Leaves simple, opposite oblon laceolate. Flowers yellowish axillary or terminal, solitary or in spreading fascicles. Fruit globose entire 2.5-3 cm in diameter purplish.

Properties : Bark of the tree is astringent. Fruit is antiscorbutic. cooling, cholagogue emollient, demulcent, anthelmintic and cardiotonic The seeds yield a valuable edible fat known as 'Kokam butter'. This is demulcent astringent and emollient.

Uses: Young leaves are given in cases of dysentery Fruit is used to treat bleeding piles. dysentery and heart diseases. Fat extracted from the seeds is used as a local applicant to ulcerations and fissures of lips hands etc.

Garcinia morella (Gaertn.) Desr.

Mal : Pinarpuli

Distribution :West coast tropical evergreen and southern moist mixed deciduous forests.

Description : A medium sized evergreen tree. bark brown. smooth exudes an orange-yellow gum when

cut. Leaves simple, opposite, elliptic-obovate to ovate-lanceolate, acute, narrowed at the base. 6-8 cm long. Flowers yellowish, in axillary clusters. Fruit subglobose. about 2 cm in diameter, subtended by the persistent sepals.

Properties :The resin obtained from the tree is hydragogue, cathartic, purgative, anthelmintic and vermifuge.

Uses : The resin is recommended for dropsical afflictions, amenorrhoea and obstinate constipation. Juice obtained from the stem is used to remove pimples and boils.

Garcinia xathochymus Hook. f. ex T. Anders.

Syn. *G. rinctoria* (DC.) Dunn.

Mal : Vairappuli

Distribution : West coast tropical evergreen forests.

Soil requirements : Variety of soils, loam to clay loam, poorly drained and strongly acidic.

Description :A medium sized tree with drooping branches. Branchlets and young twigs 4-angled; bark brown. thin. Leaves simple, opposite, linear-oblong or oblanceolate. acute or acuminate 20-40 x 5-10 cm. flowers white in clusters of 4-8 in the axils of fallen leaves. fruit globose , slightly pointed at the apex, yellow, 7-12 cm in diameter.

Properties : Fruit is antiscorbutic, cooling, cholagogue. emollient and demulcent.

Uses: Fruit is used to treat heart complaints.

Mammea suriga (Buch. - Ham. ex Roxb.) Kosterm.

Syn. *Ochrocarpus longifolius* (Wight) Benth. ex T. Anders.

Mal : Shooram punna

Distribution : West coast tropical evergreen forests, confined to North Kerala.

Description : A large evergreen tree; bark reddish brown. exudes a red gum when cut. Leaves oblong. acute or obtuse, thick, coriaceous. lateral veins not visible, 13-20 x 4.5-6 cm. Flowers white, petals with red streaks, fascicled in the axils of fallen leaves. Fruit is obliquely ovoid. mucronate, about 2.5 cm long.

Properties : Flower buds are astringent and aromatic. Flowers are stimulant. carminative, analgesic. and aphrodisiac.

Uses : Flowers are used to treat some forms of dyspepsia, haemorrhoids and leprosy.

Mesua nagassarium (Burm. f.) Kosterm.

Syn. *M. ferrea* auct. non Linn.

Mal : Nagapoovumaram, Churuli, Nangu.

San : Nagapushpa

Distribution : West coast tropical evergreen, Southern hill-top tropical evergreen and West Coast semievergreen forests.

Soil requirements : Sandy loam soils with good drainage in the slopes of hills and undulating ground along streams.

Description : A medium sized to large tree: bark reddish brown, exfoliating in thin flakes, when cut exudes an yellow gummy exudation. Leaves simple. opposite, oblong, lanceolate or linear: young leaves bright red. Flowers white, solitary or

in pairs. axillary or terminal, Fruit ovate. acute. **2-3** cm long, subtended by the enlarged sepals.

Properties : Plant is digestive and alexipharmic. Flowers are astringent and stomachic. Unripe fruit is aromatic and sudorific.

uses : Plant is used to cure biliousness. scabies, small tumours, headache. blood and heart troubles, sore throat, vomiting, dysentery, piles and asthma. Leaves are used in the form of poultice which is applied to head in severe cold. Flowers are prescribed for cough. bleeding piles and burning of the feet. Powdered flowers mixed with rancid butter which has been washed a hundred times in water are said to be an effectual application against bnrning of the feet. Oil from seeds is applied for cutaneous afflictiona, sores, boils. ulcers and rheumatic pains.

Dipterocarpaceae

Dipterocarpus indicus Bedd,

Mal : Kalpayin. Vellaaini

San : Garjanam

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Sandy clay loam soil with good drainage strongly acidic. medium in potash and low in phosphate.

Description : A lofty evergreen tree with a clean unbranched trunk for a considerable height; bark smooth. pale grey. Young twigs clothed with stellate pubescence. Leaves simple, alternate, ovate,Acute 12-25x 5-15 cm. Flowers in 3-8 flowered axillary racemes. Fruit with two enlarged wing like calyx lobes.

Uses : Oleo-resin from the tree is used in the treatment of rheumatism.

Vateria indica Linn.

Mal : Vellapayin

Distribution: West coast tropical evergreen. West cost semievergreen and West coast secondary evergreen dipterocarp forests.

Soil requirements : Soils having thick humous layer with high moisture content and good drainage. Mostly found in areas having underlying rocks of gneissic complex, often covered with laterites in varying degrees of disintegration from hard rock to fine ,gravel.

Description : A large evergreen tree; bark smooth, blotched with green and white. peelingoff in round. thick flakes. Leaves simple, alternate, elliptic-oblong, acute, cordate or rounded at base 12-25x6-7.5 cm. Flowers white, in large, terminal panicles. Fruit oblong, about 5-7 cm long; subtended by the basal calyx lobes.

Properties : Bark is alexipharmic. Resin obtained from the tree is credited with tonic. carminative and expectorant properties. The essential oit obtained-from the oleoresin has marked antibacterial property against gram-ve and gram + ve microorganisms (Howes. 1949).

Uses : Bark is used in the treatment of cough, anaemia, ear diseases urinary discharges, skin eruptions and teprosy. Resin is used against diarrhoea. piles rheumatism, tubercular glands, gonorrhoea and other veneral infections. The essential oil forms a good emollient for plasters and ointment bases, and a good stimulant

dressing for carbuncles and other ulcerations.

Malvaceae

Abutilon indicum (Linn.) Sweet

Mal : Urakam. Venkurunthotti

San : Athibala

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests. Also seen in forest plantations.

Soil requirements : Sandy slightly alkaline soil. medium in potash and very high in phosphate.

Description : An erect tomentose shrub. Leaves simple, alternate. ovate-cordate. acuminate. hairy. 4-7.5 x 2.5-5cm. Flowers yellow or orange. Carpels 15-20. separating at maturity.

Properteis : Bark is astringent. diuretic, febrifuge, anthelmintic and alexiteric. Seeds are laxative. aphrodisiac and demulcent

Uses : Leaves are used in the treatment of gonorrhoea, inflammation of the bladder and bleeding piles. A decoction is recommended for branchites and catarrhal bilious diarrhoea. It is prescribed as a mouth wash in cases of tooth ache and tender gums. Infusion of roots is considered useful in the treatment of strangury. haematuria and leprosy.

Hibiscus furcatus Roxb.

Mal : Naranampuli, Pachapuli

Distribution : Southern Moist mixed deciduous and Southern dry mixed deciduous forests. Also seen in forest plantations.

Soil requirements : Variety of soils, loamy sand to loam and slightly acidic to slightly alkaline.

Description : A prickly trailing shrub. Leaves palmately lobed, cordate at base, spinescent on the nerves beneath. 5-7.5 cm long. Flowers yellow with purplish centres, solitary.. axillary. Fruit ovoid. pointed, 1.5-2 cm long, subtended by the enlarged calyx.

Properties: Leaves are said to improve digestion and are considered anthefmintic.

Uses : Infusion of roots in water is a cooling drink. The juice of leaves with honey is used for eye diseases.

Kydia calycina Roxb.

Mal : Kattavanakku, Vellacha-tachi

Distribution : West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Soil requirements : Soils with abundant moisture. slightly acidic, medium in potash, low in phosphate and high in organic carbon.

Description: A small to medium sized tree; bark grey, rough. flaking off in irregular thin flakes. Leaves ovate-cordate, 3-7 lobed, 7-15 cm long. Flowers white or pink in many flowered terminal panicles Fruit a 3-valved capsule, about 0.5 cm in diameter, subtended by the accrescent bracteoles.

Uses : Leaves are used in the treatment of rheumatism and lumbago and chewed when there is a deficiency of saliva.

Pavonia odorata Willd.

Distribution : Southern dry mixed deciduous forests and also in scrub jungles.

Soil requirements: Sandy loam soil with good drainage, slightly acidic, medium in potash. very low in phosphate and high in organic carbon.

Description: A herb, stem and branches covered with viscous pubescence. Leaves simple, alternate, Ovate. cordate, slightly 3-5 lobed or angled. 2.5-5 cm long. Flowers pink, solitary. axillary. Fruit with 5 mericarps.

Properties : The herb possesses a musk like odour. Root is astringent, demulcent, carminative and febrifuge.

Uses : Plant is used in the treatment of rheumatism. Root is prescribed in the treatment of dysentery.

Sida acuta Burm. f.

Mal : Cheruparuva

Distribution : Moist teak bearing. Southern moist mixed deciduous and Southern dry mixed deciduous forests. Also in forest plantations.

Soil requirements : Sandy loam soil with good drainage, slightty acidic, medium in potash, low in phosphate and high in organic carbon.

Description : An undershrub. Leaves simple, alternate, elliptic. acute. 2.5-6 x 1-1.5 cm. Flowers yellow, axillary, solitary or paired. Fruit about 0.5 cm in diameter. carpels 5-9. each with two awns. (Plate Ⅱ Fig. 1)

Properties : Leaves are considered to possess demulcent and diuretic properties. Root is astringent. bitter. cooling, febrifuge, stomachic and aphrodisiac.

Uses : Leaves are used in rheumatic afflictions and to hasten suppuration The leaf pice is boiled with oil and applied in elephantiasis In Bengal the leaf juice is used in the form of an electuary in the treatment of intestinal worms. A decoction, of leaves and roots is given In haemorrhoids and impotence Root is prescribed in case of nervous and urinary diseases. chronic bowel complaints and disorders of the blood and bile.

Sida cordata (Burm f.) Borss.

Syn. *S. veronicaefolia* Lamk.

S. humilis Cav.

S. pilosa Retz.

Mal: Vallikkurunthotti

Distribution : Moist teak bearing, Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Variety of soils.

Description : A small trailing undershrub with slender branches. Leaves simple. alternate. cordate, serrate, sparingly hispid on both surface, 1-5 cm long. Flowers yellow, axillary. solitary. long pedicelled. Fruit glabrous. 5-carpelled, carpels slightly two lipped. (Plate II Fig. 2)

Uses : Leaves are used in the treatment of diarrhoea during pregnancv and used as a local applicant to cuts and bruises. Flowers and unripe fruits are recommended for burning sensation in micturition.

Sida cordifolia Linn

Syn *S. herbacea* Cav.

S. rotundifolia Cav

S .althaefolia Swartz

Mal · Katturam, Velluram. valiakurunthotti

Distribution : Southern dry mixed deciduous forests , mostly confined to South Kerala.

Soil requirements : Loamy soil with good drainage, strongly, acidic medium in potash, low in phosphate and high in organic carbon.

Description : An undershrub. young parts and leaves velvety pubescent. Leaves simple, alternate, cordate, crenate, 2.5-5 cm long. Flowers yellow, axillary, solitary or in clusters. Fruit globose, carpels 7-10, each with 2 awns which are as long as carpels.

Properties : Decoction of leaves is emollient, diuretic. Seeds are aphrodisiac. Decoction of root is a febrifuge.

Uses: Juice of the whole plant is recommended for spermatorrhoea. Along with the juice of *Borassus f/abel/ifer* it is used in elephantiasis. Leaves are reported to be used against dysentery and for poulticing Sores. Seeds are administered in gonorrhoea, colic and tetanus. Root juice is used for healing wounds and administered- in fever accompanied by shivering. Root bark is effective in curing cases of facial paralysis, Sciatica. frequent micturition and leucorrhoea.

Sida rhombifolia Linn. ssp. **retusa** (Linn.) Borss.

Syn. *S. retusa* Linn.

Mal : Kurunthotti

San : Bala

Distribution : Moist teak bearing. Southern moist mixed deciduous and Southern dry mixed deciduous forests. Also seen in forest plantations.

Description: A shrub, stem minutely stellately hairy. Leaves simple. alternate, ovate to oblong, rhomboid. very variable in size. Flowers yellow, solitary or in clusters of 3-5. axillary. Fruit globose, carpels 9-10, each with 2 short awns. (Plate II. Fig. 3)

Properties : Stem is demulcent and emollient. Both leaves and roots are aphrodisiac and are used as tonic.

Uses: A decoction of the roots in milk is beneficial in rheumatism, arthritis and allied complaints. The decoction of roots is administered to facilitate child birth.

Sida spinosa Linn.

Mal : Mayirmanikkarn

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests. Also seen in forest plantations.

Description : An undershrub. Leaves simple, alternate. eiliptic. serrate, up to 5 cm long, often with 1 - 3 small recurved spines beneath the petiole. Flowers yellowish. solitary or in axillary clusters of 2-4 Fruit with 3 (rarely 6) carpels, each with 2 awns about half the length of the carpels.

Properties : Leaves are refrigerent and demulcent. Fruit is credited with astringent and cooling properties. Root is diaphoretic (Mudaliar & Rao, 1955).

Uses : Leaves are useful in cases of gonorrhoea, gleet and scalding urine. Root is used against debility and fever. Root with bark in decoction is used as a demulcent in irritability of the bladder and in gonorrhoea (Mudaliar & Rao. 1955; Williamsan, 1955).

Thespesia lampas (Cav.) Dalz. & Gibs.

Syn. *Hibiscus lampas* Cav.

Mal : Kattuparathi. Kattupoovarasu

San : Parisa

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Moist teak bearing forests. Also found in forest plantations.

Soil requirements : Sandy loam soil, well drained, medium acidic.

Description : A shrub. Leaves simple, alternate, ovate, cordate, about 8 cm in diameter. Flowers yellow with purplish centre, solitary, axillary. Fruit oblong, acuminate, 2.5-3.5 cm long.

Uses : Fruits and roots are used in the treatment of gonorrhoea and syphilis.

Urena lobata Linn. ssp. **lobata**

Mal : Vatturam, Uthiram

Distribution : Moist teak bearing, Southern moist mixed deciduous and West coast semievergreen forests. Also found in forests plantations.

Soil requirements : Sandy clay loam soil with good drainage, slightly acidic. medium in potash and organic carbon and very low in phosphate.

Description : A Shrub. Leaves simple, altercate, ovate-cordate. serrate or toothed, pubescent on both surfaces, basally 5-7 nerved, 3-7 cm in diameter. Flowers axillary, solitary or in groups of 2-3. Fruit a capsuie. covered with glochidiate spines.

Properties : Flowers are expectorant and root is a diuretic.

Uses : Flowers are given in dry and inveterate coughs. A decoction of the stem and root is used in Brazil for severe colic. Root is used as an external application in rheumatism. (Mudaliar & Rao. 1955).

Bombacaceae

Bombax ceiba Linn.

Syn. *B. malabaricum* DC.

Salmalia malabarica (DC.) Schott & Endl.

Mal : Elavu. Poola. Muililavu

San: Sanmali

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Moist teak beaiing forests.

Soil requirements : Sandy loam soils with gpod drainage slightly acidic, low in potash, phosphate and organic carbon.

Description : A very large deciduous tree, often buttressed; bark grey, often covered with sharp, conical prickles. Leaves digitate; leaflets 7-9, ovate, lanceolate, 8-17 cm long. Flowers bright red, large. Fruit oblong, 8-12 cm long; seeds numerous, embeded in white cotton.

Properties : Gum of the tree is astringent, aphrodisiac. . alterative, demulcent and haemostatic. Young fruits are expectorant, stimulant and diuretic. Root is considered as tonic. stimulant, aphrodisiac, diuretic and emetic.

Uses : Powdered bark with lime juice checks inflammation. Gum is used to treat diarrhoea, dysentery menorrhagia and influenza. Dry flowers are prescribed in case of haemorrhoids and used externally in the treatment of boils, sores and itches. Young fruits are reported to be beneficial in calculous afflictions and chronic inflammations and ulcerations of the bladder and kidney. Seeds are

used in the treatment of chronic cystitis and catarrhal afflictions.

Sterculiaceae

Helicteres isora Linn.

Mal : laampiri. Vaiampiri

Distribution : Moist teak bearing, West coast semievergreen and Southern moist mixed deciduous forests.

Soil requirements : Sandy medium acid soils with good drainage.

Description : A large shrub or a small tree. Leaves obovate, obliquely coidate, serrate, 7-12 x 5-9 cm. Flowers red at first, changes to pale blue, axillary or from the axils of fallen leaves. Fruit spirally twisted, 4-6 cm long, (Plate II Fig, 4)

Properties : Bark and fruit are considered to be demulcent and astringent. Root with bark is expectorant, demuicenr. astringent and antigalactagogue.

Uses :Bark is prescribed in cases of dysentry and diarrhoea. Fruit and bark lessen the griping of bowels and flatulence in children Root juice is used in the treatment of diabetes emphyema. Hoot with bark is used as a cure for scabies.

Pterygota alata (Roxb) R. Br.

Syn. *Sterculia alata* Roxb.

Ma1 : Kavalam, Anathonti

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements :Sandy clay loam soils, usually in the depressions medium acidic and high in organic carbon.

Description : A large evergreen tree; bark paie grey about 2.5 cm thick. Leaves simple, ovate-cordate, entire, 9-25 x 7-17 cm. Flowers rusty brown, in short panicles from the axils of fallen leaves. Fruit of 5 subglobose, woody follicles.

Uses: Plant is used in Sylhet as a substitute for opium.

Sterculia foetida Linn.

Mal : Pottakavalam.

Distribution: Occasional in Southern dry mixed deciduous forests.

Description : A large, deciduous tree; bark smooth, grey or whitish. Leaves digitate; leaflets 5-9, oblong. lanceolate, at both ends. 7-17 x 3.5-5 cm, petiole 15-23 cm Iong. Flowers orange red. in erect. racemed panicles. Fruit of 1-5 woody follicles, bright red when ripe: seeds ovoid-oblong, 2 cm long with a small yellow caruncle.

Properties: Bark and leaves are repellent. aperient, diaphcretic, and diuretic. A decoction of fruit is mucilaginous and astringent. Oil from seeds is laxative and carminative.

Uses : The chief use of rhe plant is as a fumigant. In itches and other skin diseases it is given internally arid its paste is applied externally. In Java the fruit is used in the treatment of gonorrhoea.

Sterculia urens Roxb

Mal: Thonti

San: Balika

Distribution: Moist teak bearing. Southern moist mixed deciduous and Southern dry mixed deciduous forests

Soil requirements :Loose soil with good dralndge medium acidic.

Description : A small to moderate sized tree: bark very smooth, white or greenish grey, flaking off in large thin papery flakes. Leaves paimate, 15-20 cm in diameter, 5-7 lobed. lobes entire. velvety pubescent below. Flowers yellow in terminal panicles. Fruit of 4-6 follicles. ovoid-oblong. densely pubescenr.

Uses : Gum is used to treat throat afflictions,

Waltheria indica Linn.

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam, slightly acidic soils.

Description : An undershrub, Leaves simple, alternate, ovate, serrate, pubescent, 2.5-5 x 2-3.5 cm. Flowers yellow in dense axillary heads. Fruit enclosed by the calyx; seed solitary. black, smooth.

Properties : Plant is considered to be febrifugal, purgative and emollient.

Uses : Plant is used as a powder to heal wounds and against cough. A decoction of aerial parts is used for cleansing the wounds. The root is cliewed to control the internal haemorrhages. The root is said to have effect similar to aspirin (Watt & Brandwijk. 1962).

Tiliaceae

Grewia microcos Linn

Syn. *Microcos paniculata* Linn

Mal. Kottam

San: Paphana

Distribution : Southern moist mixed deciduous and Moist teak beating forests

Soil requirements : Loose. friable medium acidic soils with good drainage and high amount of humus.

Description : An erect shrub. Leaves simple. alternate. ovate or obovate-lanceolate, acuminate: entire or slightly toothed. 9-15 x 3.5-5cm. Flowers white. in terminal panicles Fruit slightly ovoid. purplish when ripe, 0.6-1 cm long.

Uses : Plant is made use of in the treatment of typhoid. dysentery, indigestion, ulcerration of the mouth. small pox and eczema.

Grewia tiliifolia Vahl

Mal : Chatachi. Unnam

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Description : A moderate sized tree; bark greyish black or brown. thick. Leaves large. broadly ovate. oblique at base. serrate 7-15 x 4.5-7.5 cm. Flowers yellow, in few flowered axillary umbels. Fruit a globose or 2-lobed berry; seeds 1-2.

Properties : Bark is aphrodisiac. Wood is emetic

Uses : Bark is used externally to remove the irritation from cow-itch. It is used to treat throat complaints. biliousness, cough and diseases of the blood. It is an antidote to opium poison.

Grewia villosa Willd.

Distribution: Southern dry mix ed deciduous and Laterite thorn forests

Soil requirements: Variety of soils, favours sandy loam soils with adequate supply of moisture

Description : A shrub. Leaves simple, alternate. orbicular-cordate, serrate, ciliate at the margin; 5-ribbed, velvety pubescent below, 3.5-7 cm in diameter. Flowers pale yellow in axillary or leaf opposed cymes. Fruit yellow, globose, stellately hairy, 1.2 cm in diameter.

Uses : Juice of fresh bark is made use of in the Treatment of urinary complaints with irritability of the bladder. Root is given against diarrhoea.

Triumfetta rhomboidea N. Jacq.

Distribution : Southern moist mixed deciduous and Southern dry mixed deciducus forests. Also in forest plantations.

Soil requirements: Sandy clay loam soil slightly acidic. medium in potash and organic carbon and very low in phosphate.

Description : An undershrub. Leaves simple, 3-5 iobed. tomentose beneath. Flowers small. yellow, in terminal and leaf-opposed dense cymes. Fruit about 0.4 cm in diameter. covered with hooked bristles.

Properties : Leaves, flowers and fruits are mucilaginous. demulcent and astringent. Root is Sitter and diuretic.

Uses : A decoction of the plant is used in the treatment of skin diseases. Bark and fresh leaves are recornmended for diarrhoea and dysentery. Leaves and flowers are used against leprosy. while these two, along with fruits are used to treat inveterate cases of gonorrhoea. A hot infusion of roots is taken to facilitate child birth and to hasten the inception of parturition when it is delayed. Roots are also given in cases of tuberculosis (Watt & Bayer Brand-wijk, 1962)

Elaeocarpaceae

Elaeocarpus serratus Linn.

Mal : Karamavu, Nalla - Kaia, Valiakara

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements: Variety of soils. favours clayey soils, strongly acidic and high in crganic carbon.

Description : A small to medium sized tree; bark smooth, grey. Leaves simpie, elliptic, ovate, serrate. glabrous, 4.5-10 x 2.5-5 cm. Flowers creamy white, in axillarv and extra axillary racemes. Fruit 2.5-3cm long, oblong, narrowed to the base; seed one, oblong, pointed, tubercled (Plate III Fig. 1)

Properties : Leaf is an antidote to poison.

Uses : Bark and leaves are reported to be used against rheumatism. Fruit is given in cases of dysentery and diarrhoea.

Elaeocarpus tectorius (Lour.) Poiret

Syn. *E. oblongus* sensu J. E. Sm. non Gaertn.

Mal : Kattukara, Kara

Distribution : West coast tropical evergreen forests.

Description : A medium sized to large tree. Leaves sirnpte. broadly elliptic, glabrous, glandular beneath, becomes red when old, 7-10 x 4-5 cm. Flowers creamy white in racemes. axillary or from the axils of fallen leaves. Fruit oblong. narrowed

at both ends; stone 2-seeded (Plate III, Fig. 2).

Properties : Fruit is emetic.

Uses ; Fruit is administered in the treatment of rheumatism, pneumonia, ulcers, leprosy. dropsy and piles.

Elaeocarpus tuberculatus Roxb

Mal : Navathi, Kara

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Loam to clay loam medium acidic soils.

Description : A large tree; bark grey mottled with white. Leaves simple, obovate. obtuse at apex, distantly serrate, pubescent beneath, 10-25 x 5-10 cm. Flowers creamy yellow, in rusty pubescent racemes. Fruit 3.5-4.5 cm long; stone compressed tubercled. (Plate III Fig. 3)

Uses : A decoction of bark is used in the treatment of haematemesis, indigestion and biliousness. Seeds are used as a remedy for rheumatism, typhoid and epilepsy.

Linaceae

Hugonia mystax Linn

Mal : Mothirakkanni

San : Yamsamara

Distribution : Southern dry mixed deciduous and Laterite thorn forests

Description : A straggling shrub. young twigs tomentose Leaves elliptic-obovate, glabrous 3-5 x 2.5-3.5 cm Lower branches oi the inflorescence modified into spiral hooks which are very conspicuous Flowers yellow, terminal and in the axils of upper leaves. Fruit globose, 0.8 cm in diameter, surrounded by the sepals. (Plate III, Fig. 4)

Properties : Root is febrrfugal and anthelmintic,

Uses : Root is used externally in reducing inflammatory swellings.

Erythroxylaceae

Erythroxylum moonii Hochr.

Syn. *E. acuminatum* (Arn.) Walp.

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam soils, loose, slightly acidic, medium in potash, low in phosphate and high in organic carbon.

Description : A shrub. Leaves simple, alternate, lanceolate. caudate. acuminate, mernbraneous. 2.5-3.5 x 1-2 cm. Flowers small, axillary. white. Fruits scarlet. oblong, about 1 cm long.

Uses : Leaf juice is used as an anthelmintic in Sri Lanka.

Erythroxylum monogynum Roxb.

Mal : Velutha Devatharam

Distribution : Southern dry mixed deciduous, West coast semievergreen and laterite thorn forests.

Soil requirements : Loose loamy sand, slightly acidic soil medium in ootash and organic carbon and very low in phosphate.

Description : A shrub. Leaves simple, alternate, ovate. obtusely acuminate, coriaceous. Flowers smal, axillary, whitish. Fruit an oblong drupe, obscurely 3-sided.

Properties : Infusion of Wood and bark is stomachic, diaphoretic.

stimulant and diuretic. Leaves are refrigerant.

Uses : Infusion of wood and bark is used to treat dyspepsia and fever.

Malpighiaceae

Hiptage benghalensis (Linn.) Kurz

Syn. *H. madabolta* Gaertn.

Mal : Madhavi

San: Madhavi

Distribution : Southern moist mixed deciduous forests above 500m altitude.

Soil requirements : Variety of soils; favour sandy loam with good drainage, slightly acidic.

Description : A large climbing shrub; bark brown. peels off in thin scales. Leaves simple. opposite. oblong or ovate-lanceolate. scuminate, coriaceous, 10-22 cm long. Flowers yellowish in terminal and axillary panicles. Fruit with three unequal wings.

Properties : Leaf juice has insecticidal property.

Uses: Leaves are used in the treatment of chronic rheumatism, skin diseases and asthma.

Zygophyllaceae

Tribulus terestris Linn

Mal : Njerinjil

San : Gokshura

Distribution : Southern dry mixed deciduous forests

Soil requirements : Loose soil with good drainage favours slightly acidic condition very low in potash and very high in phosphate.

Description : A small. prostrate. pubescent herb. Leaves usually opposite, sometimes alternate. pinnate. leaflets 5-7 pairs, oblong, 0.5-1 cm long Flowers yellow axillary, solitary. Fruit woody, globose. with prickles. (Plate IV, Fig. 1)

Properties: Leaves posses stomachic properties. Fruits are cooling, diuretic, and aphrodisiac. They are also used as a tonic. Root is aperient.

Uses : A paste prepared from the leaves is given for the treatment of bladder stones. The fruits form a constituent of the well known 'Dasamoolarishta'. Fruit is recommended in the treatment of painful micturition, Calculus affections, urinary discharges. impotence, gout and kidney troubles.

Oxalidaceae

Biophytum sensitivum (Linn.) DC.

Mal : Mukkutti. Thintanazhi

San : Anjalikari. Vipareethalajjalu;

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Medium acidic soils with poor drainage and permeability

Description : A small herb. Leaves pinnate, crowded at the tip of stem: leaflets 8-25 pairs, about 1 cm long, the terminal pair the largest. oblong, obliquely rounded and apiculate at apex. glabrous. Flowers yellow. in long pepuncled umbels.

Properties : Leaves are diuretic. Leaves and roots are astringent. antipyretic and antiseptic.

Uses : Powdered leaves and seeds are applied to wounds. Deco-

ction of roots is given against lithiasis.

Oxalis corniculata Linn.

Mal : Puliyarila

San : Charngeri

Distribution : Common in exposed areas in forests and also in forest plantations.

Soil requirements : variety of soils with good drainage and permeability.

Description : A small herb. Leaves alternate. digitately 3-foliolate; leaflets obcordate. 1.5.2.5 cm long. Flowers yellow, small, in umbels. Fruit a linear-oblong, five angled capsule, about 2 cm long.

Properties : Plant is astringent. antiseptic and vermifuge. Leaves contain vitamin C and carotene.

Uses : Plant is beneficial in dyspepsia and piles. The leaves boiled in butter milk is commonly used against indigestion and diarrhoea and prolapse of the rectum. An infusion ot leaves is used to remove opacities of the cornea. Leaf juice is also given to counteract the effects produced by the seeds of *Datura*.

Balsaminaceae

Impatiens chinensis Linn.

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Description : A small, succulent herb. Leaves simple. opposite, linear-oblong. serrate. very variable in size. Flowers pink, solitary or fascicled in the axils of leaves. Fruit ellipsoid, 1-2 cm long; seeds numerous, smooth, black.

Uses : Plant is used to treat gonorrhoea. It is used externally for burns.

Rutaceae

Acronychia pedunculata (Linn.) Miq.

Syn. *A. laurifolia* Bl

Mal : Muttanari

Distribution : West coast semi-evergreen forests.

Soil requirements : Loamy soils. medium acidic.

Description : A small tree; bark grey. Leaves alternate, 1-3 foliolate; leaflets elliptic-oblong or obovate, acute or obtusely acuminate, gland-dotted. 7-12 x 3-5 cm. Flowers small, white, in axillary corymbose cymes. Fruit a drupe. 0.8 cm in diameter. slightly lobed; seeds black.

Uses : Bark is used as an application to sores and ulcers.

Aegle marmelos (Linn.) Corr.

Mal : Koovalam

San . Vilva

Distribution : Occasional in Southern dry mixed deciduous forests. Grown in homesteads and temple compounds.

Soil requirements : Loamy soils with good drainage slightly acidic. high in potash, phosphate and organic carbon.

Description : A small to medium sized spinescent tree; bark grey, corky. Leaves 3-5 foliolate; leaflets lanceolate or elliptic-lanceolate 2.5-7 x 2-3.5 cm, gland dotted. Flowers white, in axillary panicles. Fruit globose. 5-12 cm in diameter, rind woody. 8-15 celled; seeds embeded in orange coloured pulp.

Properties: Pulp of the ripe fruit is aromatic, cooling and laxative. Unripe fruit is astringent, digestive and stomachic.

Uses : Leaves are recommended in cases of asthma. Ripe fruit when taken fresh, is useful in habitual constipation. chronic dysentery and dyspepsia. Root bark is used to treat intermittent fevers Root is one of the 'Dasamula' A decoction of bark and small roots curt's hypochondriac melancholy and palpitation of the heart.

Atalantia malabarica (Rafin.) Tanaka
Syn. *A monophylla* Corr.
Mal : Kattunarakam

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils strongly acidic.

Description : A small thorny tree. Leaves simple. alternate. ovate. obtuse or retuse. coriaceous. gland dotted 2.5-7 x 1 3.5 cm. Flowers white. in small axillry cymes. Fruit a berry, globose. about 2.5 cm in diameter, 2-4 celled, cells 1-seeded.

Properties : Roots are considered to be antiseptic and stimulant.

Uses : Leaf juiceis an ingredient in a compound liniment used in hemiplegia. Oil obtained from berries is used externally in chronic rheumatism arid paralysis.

Chloroxylon swietenia DC.
Mal: Varimaram

Distribution : Southern dry mixed deciduous forests.

Soil requirements: Clay loom soils with good drainage, slightly acidic. high in potash. phosphate and organic carbon.

Description : A small to medium sized tree; bark greyish yellow, corky. Leaves pinnate; leaflets 10-20 pairs. oblong. obtuse. 2-3 x 1 cm. gland dotted. Flowers small, yellowish, in axillary and terminal panicles. Fruit an oblong capsule. (Plate IV. Fig. 3)

Propetries : Bark is astringent.

Uses : Leaves are applied to wounds. They are also useful in rheumatism.

Citrus medica Linn.
Mal : Ganapathi narakarn,
San : Mathujamga

Distribution : West coast semievergreen forests in Central Kerala.

Soil requirements : Variety of soils: favours loamy strongly acidic to slightly alkaline soils with good drainage,

Description : A smalltree with Stout axillary spines: bark thin, greenish grey, smooth. Leaves simple. elliptic or ovate lanccolate. entire or crenuiata, gland dotted,7-15 cm long; petiole winged. Flowers white. frayrant, solitary or in axillary cymes. Fruit ovoid, oblong or globose. 5-10 cm in diameter.

Properties: Flowers and buds are stiniuiant and astringent. Ripe fruit is stimulant. Fruit juice is refrigerant and astringent. Root is anthelmintic.

Uses: Powdered rind of the fruit is ususally a remedy for dysentry. Root Is used to treat constipation. vomiting and urinary calculus

Euodia Iunu-ankenda (Gaertn.) Merr.
Syn *E roxburghiana* Benth

Mal : Kampili, Kanala, Nasakam

Distribution : West coast tropical evergreen, West coast semievergreen and Moist tear; bearing forests.

Soil requirements : Sandy loam soil with good drainage, medium acidic. medium in potash and phosphate and high in organic carbon.

Description : A small to medium sized tree, bark smooth, grey, lenticellate. Leaves opposite, trifoliolate, leaflets obovate. or oblong lanceolate. acuminate, 5-12 x 3-6 cm. Flowers small, gieenish. in axillary paniculate cymes, seeds black.

Properties : infusion of leaves and flowers is a tonic. and emmenagogue.

Uses : Leaf juice is recommended is cases of fever. Decoction of root with bark is given to improve complexion.

Feronia limonia (Linn.) Swingle

Syn. *F. elephantum* Corr.

Mal : Vilamararn

Distribution : Southern dry mixed deciduous forests.

Description : A small to medium sized tree with sharp spines. Leaves alternate. pinnate; leaflets 3-9. cuneare or obovate, often crenulate at apex, 2-5 *x* 1-2.5 cm; petiole and rachis narrowly winged. Flowers small. in lateral and terminal pubescent panicles. Fruit globose , woody, 5-6 cm in diameter; seeds embeded in pulp.

Properties : Leaves are aromatic and carminative. Fruit is astringent. stomachic, stimulant and antiscorbutic.

Uses : Bark of the tree is prescribed for biliousness. Unripe fruit is used in the treatment of drarrhoea and dysentery. The pulp of the fruit is used lor afflictions of the gum and throat.

Glycosmis pentaphylla (Retz) DC

Syn. *G. cochinchinensis* auct non Pierre ex Engl.

Mal: Panal

San : Kupilu

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Description :A shrub Leaves alternate. 1-5- foliolate. leaflets ovate or obovate, very variable. Flowers white in axillary short panicles. Fruit white, about 0 5 - 0 8 cm long

Properties: Root is antipyretic.

Uses **:**Juice of the whole plant is given in cases of fits in pregnant women. A decoction of root is given against diarrhoea and rheumatism.

Murraya koenigii (Linn.) Spreng

Mal : Kariveppu

San : Kalasakah

Distribution : Occasional in West coast tropical evergreen forests.

Soil requirements : Loamy soil with gaod drainage medium acidic. low in potash and phosphate and high in organic carbon.

Description : A small tree . Leaves pinnate; leaflets cuneate at base. entire. with aromatic smell. Flowers small. creamy , white. in terminal corymbs . Fruit a berry. ovoid. black.

Properties : Plant juice is used as a tonic stomachic and laxative. Bark and roots are stimulants.

Uses : Green leaves are eaten raw against dysentery and vomiting. They are applied externally to cure

eruptions. A decoction of leaves and petiole is given against rheumatism, leprosy, internal poison, piles, diarrhoea and fever. Leaves and roots are used in the treatment of leucoderma and blood disorders. In Assam the juice of the root is used against pain associted with kidney.

Murraya paniculata (Linn.) Jack.

Syn. *M. exotica* Linn.

Distribution : Occasional in West coast. tropical evergreen and West coast semievergreen forests.

Soil requirements: Variaty of soils, favours loamy soils with good drainage. medium acidic. low in potash and phosphate and high In organic carbon.

Description : A small tree; bark thin, corky. grey. Leaves alternate, leaflets obliquely rhomboid, acuminate. Flowers white. fragrant, axillary. solitary or in clusters. Fruit ellipsoidal. red, 5 mm long.

Properties : Stem and roots are antidiarrhoeal, Leavas are stimulant and astringent.

Uses: Powdered leaves are applied to cuts arid administered in diarrhoea and dysentery. A decoction of leaves is taken against dropsy, Leaves and root bark are sometimes used against rheumatism, coughs and hysteria.

Paramigyna monophylla Wight

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Description : A thorny climbing shrub: older branches armed with recurved spines. Leaves ovate-oblong or elliptic. obtuse at apex, rounded at base. 4-9 x 2-5 cm. Flowers white, axillary. Fruit subglobose. 2.5 cm long; seeds numerous.

Properties : Root is alterative and diuretic.

Toddalia asiatica (Linn.) Lamk.

Syn. *T. aculeata* Pers.

Mal : Karamullu, Kakkathutali. Thutali

San : Thikshnaksha

Distribution : West coast semi-evergreen, Sourhern moist mixed deciduous and Southern dry mixed deciduous forests.

Description : A thorny. climbing shrub, stem with corky protuberances bearing curved spines. Leaves 3-foliolate; leaflets sessile, obovate, gland-dotted, 3.5-8 x 2-3.5 cm. Flowers small, in axillary and terminaf cymes, Fruit globose, orange coloured. about 0.5 in diameter, 3-5 grooved; seeds reniform. (Plate IV, Fig. 2)

Properties : Plant is a febrifuge. Root bark is bitter, aromatic. stimulant, antiperiodic.

Uses : Flower juice is applied to stings of wasps which is said to give immediate relief, Unripe fruit and root are used to make a stiumlant liniment for rheumatism. Root bark is given as a weak infusion in cases of constitutional debility and in convalescence. In Africa. the macerated root bark is used for the treatment of cough and influenza.

Vepris bilocularis (Wight & Arn.)Engl.

Mal : Karakil. Muthassari

Distribution : West coast tropical evergreen and West coast evergreen forests.

Soil requirements : Loamy soil with impeded drainage.. slightly acidic.

Description: A large tree. Leaves 3-foliolate; lanceolate or ovate. subsessile, 7.5-16 x 3.5-7 cm. Flowers greenish yellow in terminal panicles. Fruit globose, 1.5 cm in diameter.

Uses : A decoction of wood. boiled in oil, is used for eye and ear diseases, rheumatism and asthma. Decoction of the root is given against biliousness.

Zanthoxylum rhetsa (Roxb.) DC.

Syn. *Z. budrunga* Wall

Mal. Karimurukku, Mullilam

Distribution : West coast semi-evergreen. Moist teak bearing and Southern moist mixed deciduos forests.

Soil requirements. Sandy loam soils with good drainage medium acidic. low in potash and phosphate and high in organic carbon.

Description : A medium sited tree; stem with stout conical prickles. Leaves pinnate, crowded at the ends of branches; leaflets 8-20 pairs, ovate-oblong, acuminate, 7-12 x 4-5 cm. Flowars greenish yellow in terminal paniculate cymes. Fruit tubercled. with aromatic smell: seeds globose bluish black, smooth.

Properties : Fruit is astringent. stimulant and stomachic. Root bark is a purgative.

Uses: Fruit is prescribed in dyspepsia, diarrhoea. rheumatism. asthma, bronchitis. piles and heart diseases. The essential oil obtained from seeds is used for the treatment of cholera.

Simaroubaceae

Ailanthus excelsa Roxb.

Ma1 : Matti, Pongiliyam

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Sandy loam soils with good drainage,very slightly acidic, medium in potash and high in phosphate and organic carbon.

Description : A targe tree; bark light greyish brown, rough . Leaves 25-30 (60) cm long. pinnate. leaflets 8-14 pairs. subopposite. unequal at base, coarsely toothed, glandular pubescent beneath. Flowers small. yellow. in terminal and axillary panicles. Fruit winged. about 5 x 1.3 cm. reddish.

Properties: Bark is a tonic. febrifuge , expectorant, antispasmodic and astringent .

Uses: Bark is used in the treatmenr of chronic bronchitis. asthma and dyspeptic complaints.

Ailanthus triphysa (Dennst.) Alston

Syn . *A . mlabarica* DC.

Mal : Matti, Pongiliyam, Per-.

San : Katvanga

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils. favours sandy loam soil with good drainage. medium acidic.

Description : A large deciduous tree, bark grey, thick, exudes a brownish resin when cut. Leaves 40-60 cm long, pinnate; leaflets 10-24. ovate-oblong or oblong-lanceolate. entire, glabrous. Flowers small, yellow. in terminal and axillary pani-

cles. Fruit with large membraneous wings, 5-7 x 1-2 cm.

Properties : Bark is carminative, ionic and febrifuge.

Uses: Leaves are recommended against cephalalgia and gastralgia. Resin obtained from the bark is used in the treatment of dysentery.

Quassia indica (Gaertn.) Nooteb.

Syn. *Samedera indica* Gaertn.

Mal : Njota, Karinjotta

Distribution: West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils. favours loamy soils, medium

Description : A small evergreen tree. Leaves simple. elliptic lanceolate or oblong. up to 25 x 7 cm, with two glands at the base. Flowers yellowish red, in dense umbels on long pendulous peduncles. Fruit flattered, red, 5-6 cm in diameter with narrow wings. 1-seeded.

Properties : Bark is a febrifuge. Infusion of wood is tonic. stomachic and emmenagogue. Infusion of leaves has insecticidal properties.

Uses : An infusion of leaves is used to kill lice. fleas, and white ants. Seeds are used against bilious fever and are used as a purgative and emetic. Oil from seeds is used as an external application in rheumatism.

Ochnaceae

Ochna obtusata DC.

Syn. *0. squarrosa* auct. non Linn.

Distribution : West coast semievergreen forests in South Kerala.

Soil requirements : Loamy soils with good drainage, medium acidic.

Description: A small tree, bark thin. brown. Leaves simple. lanceolate to oblong-ovate, finely serrate. 5-12 cm long. Flowers yellow, fragrant. in short panicles or umbels. Fruit ovoid, black, subtended by the persistent sepals.

Properties : Bark is considered to be a tonic. Leaves are emollient.

Uses : Leaves are used as an emollient in cataplasm. A decoction of root is given in menstrual complaints. tuberculosis and asthma.

Gomphia serrata(Gaertn.) Kanis

Syn *G. angustifolia* Vahl

Ouratea angustifolia Gilg

Mal : Valarmani

Distribution : West coast tropical evergreen, Southern hill-top tropical evergreen and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils from coarse to fine textured, slightly acidic, medium in organic carbon.

Distribution : A large evergreen tree; bark grey or white, rough and flaky;exude a resin when cut, turning black on drying. Leaves large. pinnate, leaflets entire or serrate. pubescent beneath. Flowers yellow. in axillary panicles. Fruit an ellipsoidal drupe, 2.5-5 cm long.

Uses : Gum is used in the treatment of rheumatism and chronic skin diseases.

Burseraceae

Garuga pinnata Roxb.

Mal : Annakkara

San : Krishnamlika

Distribution : Southern moist mixed deciduous, Moist teak bearing

and Southern dry mixed deciduous forests.

Soil requirements : Sandy loam soil, medium acidic and high in organic carbon.

Description : A medium sized to large deciduous tree; bark thick, grey or brown, flaking off in large irregular thin flakes. Leaves 15-40 cm long, crowded at the ends of branches, pinnate, pubescent; leaflets 6-10 pairs, ovate-lanceolate, acuminate, crenate. Flowers yellow in terminal panicles. Fruit globose, fleshy. 1.5-2 cm in diameter.

Properties : Bark is astringent. Fruit is stomachic.

Uses : Juice of the stem cures opacities of the conjuctivitis. Leaf juice along with honey is given for asthma. A decoction of the root is used in Philippines for pulmonary afflictions.

Meliaceae

Aglaia elaeagnoidea (Juss.) Benth.

Syn. *A. roxburghiana* Miq.

Mal : Punyava

Distribution : West coast tropical evergreen forests.

Soil requirements : Loamy moist soils. strongly acidic.

Description : A moderate sized evergreen tree; bark thin, smooth, greenish or grey brown. Leaves pinnate; leaflets 5-7, elliptic or oblanceolate, entire, glabrous, 5-10 x 2.5-5 cm. Flowers small, orange-yellow, in axillary and terminal short panicles. Fruit a berry, 1-2 cm long, pyriform.

Properties : Fruit is cooling and astringent.

Uses : Fruit is recommended in cases of inflammation and leprosy.

Aphanamixis polystachya (Wall.) Parker

Syn. *Amoora rohituka* (Roxb.) Wight & Arn.

Mal : Chemmaram

San : Rohithaka

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils; favours loamy soils with impeded drainage, medium acidic.

Description: A middle sized evergreen tree with large spreading crown; bark thin, grey. Leaves pinnate. 30-70 cm long; leaflets 9-17, elliptic oblong, entire. Flowers yellowish; male in long panicles; female in short spikes. Fruit pale yellow or reddish, 2.5-3.5 cm in diameter. (Plate IV, Fig. 4)

Properties: Bark is astringent. Seeds are refrigerant. laxative and anthelmintic. Seed extract shows significant antibacterial activity (Bhatt & Saxena. 1980).

Uses : Bark is used to treat enlarged liver and spleen, tumours and abdominal complaints. Seed oil is used as liniment in rheumatism and also to treat ulcers and diseases of the ear and eyes.

Azadirachta indica A. Juss.

Melia azadirachta Linn.

Mal : Ariveppu, Veppu

San : Nimba

Distribution : Occasional in Southern dry mixed deciduous forests. Often grown in homesteads.

Soil requirements : Loamy sand, slightly acidic soil with good

age, low in potash and phosphate and medium in organic carbon.

Description : A medium sized to large tree; bark dark brown. rough, exudes gummy exudation when cut. Leaves pinnate. 15-30 cm long; leaflets 9-15, lanceolate, often falcate. serrate, glabrous. Flowers white. in axillary panicles. Fruit oblong, 1-2 cm long; 1 seeded.

Properties : Bark of the tree which is more than hundred years old is found to have more medicinal value (Narayana Aiyar *et. al.,* 1957). It is antiperiodic. alterative and tonic. An aquous extract of the bark causes immobilization of human spermatozoa. Gum acts as a tonic and demulcent. A decoction of leaves is antiseptic. insect repellent and insecticidal. Dry flowers are tonic and stomachic. Fruit is purgative, emollisnt. anthelmintic. Oil from seeds is stimulant. antiseptic and alterative.

Uses: Plant is used in the treatment of leprosy, piles and urinary diseases. Gum is used against catarrhal afflictions. Leaves are used as a poultice for boils and are applied externally to ulcers and eczema. Oil from seeds is used in the treatment of skin diseases and rheumatism.

Chukrasia tabularis A. Juss.

Mal : Chuvanna akil. Malaveppu

San : Mahanimba

Distribution : Sporadic in the West coast semievergreen and Southern moist mixed deciduous forests.

Soil requirements : Sandy loam soils, slightly acidic.

Description : A large deciduous tree: bark brown, deeply cracked, Leaves pinnate, 25.45 cm long; leaflets 10-24, obliquely ovate-acuminate. pubescent beneath. Flowers yeliowish white, in Terminal panicles. Fruit an ovoid 3-valved capsule. brown, 3.5 cm long.

Properties : Bark is astringent.

Dysoxylum malabaricum Bedd. ex Hiern

Mal : Vella akil

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Variety of soils usually in moist areas. loam to clay loam. medium to slightly acidic.

Decription : A large evergreen tree; bark dark grey with white warts. Leaves pinnate. rachis angular. 20-45 cm long; leaflets 7-11, elliptic-oblong, acuminate 8-20 cm long. entire. Flowers greenish yellow, fragrant, in axillary panicles. Fruit an yellow pear-shaped capsule, 5-7 5cm long. (Plate V. Fig. 1)

Uses : Decoction of wood is used in the treatrnent of rheumatism. The oil obtained from wood is used to treat ear and eye diseases.

Melia dubia Cav.

Syn. *M. composita* Willd.

Mal : Malaveppu

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Sandy loam soils. slightly acidic,

Description : A large deciduous tree with a spreading cruwn; bark dark brown, flaking off in large rectangular flakes; blaze purplish red outside, white inside. Leaves bipinnate. 25-75 cm long: leaflets

lanceolate, serrate, sometimes entire. Flowers greenish white, slightly fragrant, in axillary and extra-axillary panicles. Fruit an ovoid drupe. 2.5-3.5 cm long. (Plate V. Fig. 2)

Properties : Bark is said to have digestive property.

Uses : Juice of green fruit is applied to skin diseases. Pulp of the fruit is recommended in cases of colic and is useful as a cholagogue in malarial fever.

Nuregamia alata Wight & Arn.

Mal : Nilanarakam

Distribution : Southern moist mixed deciduous. Southern dry mixed deciduous and Moist teak bearing forests.

Doscription : A herb. woody at base. Leaves 3-foliolate, petiole winged. leaflets sessile. cuneate, obovate. 2-4 cm long. Flowers white, axillary. solitary or binate, 2.5-4 cm long.

Properties : Root is emetic, cholagogue and expectorant

Uses : Whole plant is used against rheumatism. A decoction of leaves and sterns is given for biliousness. Root is useful in case of acute dysentery.

Toona ciliata Roem.

Syn. *Cedrela toona* Roxb.

Mal : Madagirivembu, Vedi Vembu

San : Nandi vriksha

Distribution : West coast tropical evergreen. Southern hill-top tropical evergreen, West coast semi-evergreen and occasionally in Moist teak bearing forests.

Soil requirements : Variety of soils, loam,clay-loam, medium slightly acidic.

Description : A large tree; bark thin, brown, flaking off in large thin flakes. Leaves pinnate. up to 90 cm long leaflets 8-20 pairs, lanceolate or ovate-lanceolate, acuminate. entire or serrate, often with domatia in the axil of veins beneath. Flowers white. in large terminal panicles. Fruit an oblong capsule, about 2 cm long. (Plate V. Fig. 3)

Properties : Bark is astringent. antiperiodic and aphrodisiac. Flower is an emmenagogue.

Uses : Bark is recommended in cases of chronic infantile dysentery. It is also used as an external application for ulcers and leprosy.

Trichilia connaroides (Wight & Arn.) Bent.

Syn. *Heynea trijuge* Roxb.

Distribution : West coast tropical evergreen forests.

Soil requirements : Clay Loam soil poorly drained. strongly acidic.

Description : A small evergreen tree; bark thin. rough. reddish-brown or grey, lenticellate. Leaves pinnate, 15-35 cm long; leaflets 7-9; ovate, acuminate. entire. glabrous. Flowers white. in axtllary, long peduncted corymbose panicles. Fruit pink, globose. 1-1.5 cm long.

Properties : Bark and leaves are bitter and are considered to be a tonic.

Uses : A decoction of leaves is taken against cholera.

Turraea villosa Benn.

Distribution : West coast tropical evergreen forests.

Description : A large shrub. Leaves simple. ovate. acuminate.

entire, pubescent, 5.10 x 3.5-5 cm. Flowers white, up to 5 cm long in few flowered axillary clusters. Fruit a globose capsule. about 1 cm in diameter. (Plate V. Fig. 4)

Uses : Root is administered internally in leprosy.

Walsura trifolia (A. Juss.) Harms

Syn. *W. piscidia* Roxb.

Mal : Perillappacha

Distribution : West coast tropical evergreen forests.

Soil requirements : Variety of soils, favours medium acidic loamy soils with good drainage.

Description : A moderate sized tree; bark greyish brown. Leaves 3-foliolate; leaflets ovate, entire, glabrous. 5-15 x 2.5-6cm. Flowers greenishyellow in long peduncled axillary and terminal racemes. Fruit a berry. red, ovoid tomentose. about 1.2 cm long.

Properties : Bark is astringent, expectorant, emmenagogue and emetic.

Uses : Bark is used in the treatment of skin diseases.

lcacinaceae

Sarcostigma kleinii Wight &Arn.

Mal : Odal. Vellodal

Distribution : West coast tropical evergreen. Southern hill-top tropical evergreen and West coast semievergreen forests.

Description : A large climbing shrub. Leaves simple. alternate, oblong-lanceolate, entire, 10-25 x 5-8 cm. Flowers very small, orange-yellow, in slender spikes. Fruit an oblong drupe. 2.5-4 cm long. orange-yellow.

Uses : Powdered bark mixed with honey is given in rheumatism. Oil from seeds is used against rheumatism. leprosy and piles.

Celastraceae

Cassine glauca (Rottb.) Kuntze

Syn. *Elaeodendron glaucum* (Rottb.) Pers.

Mal : Keruvali

Distribution : Occasional in Southern dry mixed deciduous forests.

Soil requirements : Slightly alkaline soils.

Description : A moderate sized tree; bark grey, flaking off in small scales. Leaves opposite or subopposite, elliptic. serrate, glabrous, 5-12 x 2.5-5 cm Flowers yellowish green in axillary. few flowered corymbose cymes. Fruit an ovoid, apiculate. drupe, yellowish green, 1cm long.

Properties : Leaves are strenutatory. Roots are emetic.

Uses : Powdered leaves are used as snuff to relieve headache. Fresh root bark is applied to swellings.

Celastrus paniculatus Willd.

Mal : Kilitheeni panji

San : Peethathaila

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Description : A large climbing shrub; bark yellowish. corky. Leaves simple, alternate, obovate. crenate, 5-10 x 2.5-5 cm. Flowers greenish, in lax terminal panicles. Fruit a globose capsule, 0.6 cm across; seeds yellow. enclosed in red aril (Plate VI, Fig. 1)

Properties : Bark is abortifacient. Leaf is an emmenagogue. Seeds are

bitter, laxative, emetic, stimulant. and aphrodisiac. Oil from seeds is diuretic and diaphoretia.

Uses : Leaves and roots are used as a poultice to relieve headache. Seeds are used in the treatment of rheumatism. leprosy and gout. Oil from seed is given against beriberi, cough and asthma.

Hippocrateaceae

Salacia oblonga Wall.

Mal : Ponkoranti

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Description : A straggling shrub. Leaves simple, opposite. elliptic-oblong, rounded or obtusely acuminate, 7-15 x 2.5-5 cm. Flowers small yellow, in short axillary cymes. Fruits globose or somewhat pyriform, about 5 cm in diameter, orange when ripe.

Properties : Plant is said to have mild antiseptic property.

Uses: Root bark is used in the treatment of rheumatism and skin diseases.

Rhamnaceae

Rhamnus wightii Wight & Arn .

Distribution : Southern montane wet scrub and Southern montane wet temperate forests.

Soil requirements : Loamy sand. slightly acidic soils, with good drainage, low in potash and phosphate and high in organic carbon.

Description : A shrub or small tree. Leaves simple, opposite. elliptic or oblong, acuminate, finely serrate, 4.7 x 1.5-2.5 cm. Flowers small, greenish. fascicled in the leaf axils. Fruit purple. about 0.4 cm long. subtended by the calyx.

Properties : Bark is tonic, astringent and deobstruent.

Ventilago denticulata Willd.

Syn. *V. calyculata* Tul.

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests in North Kerala.

Description : A large woody climber with tendrils, bark dark grey. branchlets grey pubescent. Leaves alternate. ovate or elliptic-&tony. unequally rounded at base, crenate. 5-12 x 2.5-5 cm. Flowers small, greenish in terminal panicles. Fruit winged, 3.5-5 cm long, wings yellow, pubescent.

Uses: Juice of bark and young shoots is applied to the body to get relief from pain which accompany malarial fever. Bark is powdered and applied on sprains. Sap is used to treat deafness. (Dressers, 1951).

Ventilago maderaspatana Gaertn.

Mal : Vernpadam

San : Dinesavalli

Distribution : Rare in Kerala forests. Mostly seen on the eastern slopes of Western Ghats.

Description : A climbing shrub: bark dark grey with vertical cracks. red inside. Leaves alternate, ovate. lanceolate. crenate, 5-10 x 2.5-3.5 cm. Flowers yellowish in pubescent terminal panicles. Fruit winged, 3.5-5 cm long, wings brown, linear-oblonq

Properties : Root bark is carminative, stomachic and

Uses: Root bark is used in the treatment of dyspepsia, debility and mild fever.

Ziziphus glabrata Heyne ex Roth

Syn. *Z trinervia* Roxb.

Mal : Karkataka maram

Distribution : Southern moist mixed deciduous forests.

Soil requirements : Clay loam soil with good drainage. slightly acidic. high in potash. phosphate and organic carbon.

Description : A small unarmed tree. Leaves, simple, alternate elliptic, obtuse or slightly acute at apex, basally 3-5 nerved. glabrous or pubescent on the veins beneath. 2.5-7x 2-3.5 cm. flowers small, greenish. in short sessile, axillary cymes. Fruit globose, yellow, 1.3-2 cm in diameter.

Uses : Decoction of leaves is given to purity blood in cases of cachexia and as an alternative in venereal diseases.

Ziziphus mauritiana Lamk.

Syn. *jujuba* (Linn.) Gaertn.

Mal : Ilantha. Lantha

San: Kolah

Distribution : Occasional in the Southern dry mixed deciduous forests.

Soil requirements : Loamy sand, slightly acidic soil. low in potash and phosphate and high in organic carbon.

Description : A small thorny tree. branchlets tomentose; bark dark grey or black wirh vertical cracks, reddish inside. Leaves simple alternate, basally 3-5 nerved, entire or serrate. densely tomentose beneath. 2.5-5 cm. Flowers small, greenish yellow in axillary cymes. Fruit globose, 1.3-2 cm in diameter. orange or red.

Properties : Bark is anthelmintic. fruit is styptic. it is considered to purify the blood and aid in digestion. Seed has a sedative effact, is sopoorific, and an antidote to aconite poisoning.

Uses : Leaves are used to treat dysuria. Young leaves are good medicine for piles. Seeds are prescribed to stop vomiting and are given against diarrohoea. Decoction of root is given in cases of fever. Powdered root is applied to wounds and ulcers and to arthritic pain.

Ziziphus oenoplia (Linn.) Mill.

Mal : Kottavalli. Mulli

San : Karkka

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam soil with good drainage, slightly acidic, low in potash and phosphate and medium in organic carbon.

Description : A straggling prickly shrub; bark dark grey. rough. Leaves alternate, ovate, lanceolate. base oblique, 3-5 nerved basally, densely brown tomentose beneath. 2.5-5 x 2.2-5 cm Flowers small, greenish. in axillary sessile dichotomous cymes. Fruit black 0.6 cm long

Uses:Fruit is used as an ingredient of pills against stomach ache. A decoction of root bark is used to heal fresh wounds.

Ziziphus rugosa Lamk.

Mal: Cheruthutali, Malanthutali, Thutali

San : Karkkandhu

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Sod requirements: Loamy sand, slightly acidic soil, with good

drainage, medium in potash and phosphate contents.

Description : A large prickly straggling shrub. Leaves simple, alternate, elliptic, rounded or cordate at base, serrate, basally 3.6 nerved. 5-12 cm long. flowers small, yellow in terminal and axillary panicles. Fruit ovoid, 0.6 cm long, red.

Uses : Flowers are recommended for rnenorrhagia.

Vitaceae

Ampelocissus araneosa (Dalz. & Gibs.) Planch.

Distribution : Southern montane wet scrub forests at Munnar.

Description : A slender climbing shrub. Leaves 3-foliolate. the lateral leaflets semicordate, the terminal one ovate, greyish brown tomentose beneath. Leaves sometimes merely lobed. Flowers yellowish in leaf-opposed pedunculate cymes.

Properties : Root is cooling and ***astringent.***

Ampelocissus arnottiana Planch.

Syn. *Vitis indica* Wight & Arn.

Mal : Chemparavalli

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Description: A slender climbing shrub; brancehes and leaves denseley covered with wooly tomentum. Leaves broadly ovate, cordate. acute, denticulate-serrate, 10-20 x 7-16 cm. Flowers greenish purple. in raceme of umbels. Fruit a berry, ovoid-oblong. purple, about 2 cm long.

Properties : Root juice is a blood purifier, alterative. diuretic. depurative and aperient.

Uses: Roots are given against bronchitis and gonorrhoea. Root juice mixed with coconut milk is applied to ulcers.

Ampelocissus tomentosa (Heyne ex Roth) Planch.

Syn. *Vitis tomentosa* Heyne ex Roth

Distribution : Secondary dry deciduous and Laterite thorn forests.

Description : A large climbing shrub, stern covered with reddish or greyish tomentum. Leaves orbicular-cordate or 3-7 angled or lobed. tomentose. 10-20 cm on either way. flowers red in dense umbellate cymes. Fruit a berry, subglobose. about 1cm in diameter.

Uses : Root is used to allay sweliings. It is also used against piles (Bressers. 1951).

Cayratia carnsa (Wall.) Gagnep.

Syn. *Vitis carnonsa* Wall.

Mal : Chorivalli

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Description : A fleshy twining shrub. Leaves pedately 3-foliolate: leaflets ovate-lanceolate or obovate. dentate. usually pubescent, 3.5-5x 2-3cm. Flower small, greenish, in axillary umbellate cymes. Fruit a white berry, 1-2 cm long.

Properties : Root is astringent.

Uses: Formationion with a hot decoction of leaves and roots has been recommended in high fevers to cause perspiration. The seeds and leaves are used as an embrocation. Root is used against rheumatism, bronchial troubles and spleen Complaints.

Cayratia mollissima (Wall.) Gagnop.

Syn. *Vitis mollissima* Wall,

Distribution : West coast tropical evergreen forests in North Kerala.

Description : A climbing shrub. Leaves 3- foliolate. softly pubescent as are the branches. Flowers in axillary corymbose cymes. Fruit a berry, white. about 2.5 cm in diameter,

Uses : Fruits are used for poulticing swellings.

Cayratia pedata (Lamk.) Juss. ex Gagnep.

Syn. *Vitis pedata* (Lamk.) Wall ex Wight

Mal : Vallichoriyanam

Distribution : Southern montane wet scrub and Southern hill-top tropical evergreen forests.

Description : A large weak climbing shrub. Leaves pedately 7-9foliolate; leaflets oblong - lanceolate, acuminate. usually Softly pubescent, 5–10 x 2.5-6 cm. Flowers white. in axillary corymbose cymes. Fruit a berry, creamy whire. subglobose or 4-lobed.

Properties : Leaves are astringent and refrigerant.

Uses: Leaves ale used against ulcers. A decoction of leaves are used to check uterine reftexes.

Cissus adnata Roxb.

Syn. *Vitis adnata* (Roxb.) Wall.

Distribution : In Laterite thorn forests and Dry deciduous scrub jungles.

Soil requirements : Loamy sand. slightly acidic soils with good drainage and good amount of gravel, low in potash and phosphate and medium in organic carbon.

Description : A slender climbing shrub stem covered with orange-red pubescence, Leaves broadly cordate. 5-angled or sometimes lobed conspicuously, bluntly serrate, grey tomentose beneath, 7-12 x 5-8 cm. Flowers greenish yellow in much branched compound umbellate cymes. Fruit a berry, black, obovoid or subylobose. 0.5 cm in diameter.

Properties : Decoction of tuber is diuretic. alterative and blood purifying.

Uses : Powdered root is applied to cuts and fractures.

Cissus quadrangularis Linn.

Syn. *Vitis quadrangularis* (Linn.) Wall. ex Wight

Mal : Changalamparanta

San : Asthisamhara

Distribution : Southern dry mixed deciduous forest and Dry deciduous scrub jungles.

Soil requirements : Loamy sand slightly acidic soils with good drainage. low in potash and phosphate and medium in organic carbon.

Description : A climbing shrub. stem fleshy, quadrangular. Leaves broadly ovate or reniform. entire or lobed, 2.5-5 cm long. Flowers yellowish red in umbellate cymes. Fruit a berry. red. 6 mm in diameter.

Properties : Stem is laxative. anthelmintic. aphrodisiac and analgesic. Leaves and young shoots are alterative.

Uses : Juice of the stem is used in the treatment of irregular menstruation. scurvy, bronchial troubles, piles. epileptic fits and chronic ulcers.

Cissus repens Lamk.

Syn *Vitis repens* (Lamk.) Wight & Arn.

Distribution : A slender trailing shrub. the stem glaucous, white. Leaves ovate, acuminate. deeply cordate at base, membraneous, 7-15 x 2.5-7.5 cm. Flowers very small in compound umbellate cymes. Fruit a subglobose or pyriform berry. about 4 mm in diameter.

Uses : Plant is made into a paste and applied externally to foetid ulcerations and boils.

Leeaceae

Leea crispa Linn.

Mal : Njallu

Distribution : West coast tropical evergreen and West coast semievergreen forests in North Kerala.

Description : A shrub with tuberousroots; sometimes with crispate wings. Leaves simple or bipinnate; leaflets oblong, serrate. lateral nerves close and parallel. Flowers greenish yellow. in corymbose cymes. Fruit grey or black. about 5mm broad,

Uses : Leaves are applied to wounds. Tubers are used as a remedy for guinea worms.

Leea indica (Burm.) Merr.

Syn *Lsambucina* Willd.

Mal : Irattani. Maniperanti

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Slightly acidic. soils. low in potash, medium in phosphate and high in organic carbon.

Description : A large shrub. sometimes a small tree. Leaves large. 2-3 pinnate. 30-45 cm long; leaflets oblong or elliptic oblong, serrate, gla brous on both surfaces. Flowers greenish white in large leaf opposed corymbose cymes. Fruit depressed globose, black-purple. 1 cm in diameter.

Properties : Root is sudorific.

Uses : Leaves give relief in vertigo. A decoction of the root is given in case of diarrhoea and dysentery.

Leea macropbylla Roxb. ex Hornem.

Syn. *L. robusta* Roxb.

Distribution : Southern moist mixed deciauous. Moist teak bearing and West coast semievergreen forests.

Description : A large shrub with thick hollow stems. Leaves 2-3 pinnate. upto 60 cm tong: leaflets large. ovate-oblong. rounded or subcordate at base, serrate, pubescent especially on the nerves beneath. Flowers white, in terminal corymbose cymes. Fruit depressed globose. 3-6 lobed. black, about 7 mm in diameter.

Properties : Root is astringent and alexipharmic

Uses : Root is used to treat ringworm, guinea worm and obstinate sores.

Sapindaceae

Allophylus cobbe (Linn.) Raeusch.

A. rheedii Radlk.

Mal : Mukkannanpezhu

San : Thriputa

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description : A large shrub or a small tree; bark yellowish brown. Leaves alternate, 3-foliolate. 7.5-15 cm long; leaflets ovate or elliptic. acute or acuminate. serrate. pubescent on both surfaces. Flowers small. white, in spicate branched racemes. Fruit red. (Plate VI. Fig. 2)

Properties : Root is astringent.

Uses: Root is given to check diarrhoea. The leaf made into a paste is applied against swellings and bone fracture by the local Ayurvedic practitioners.

Cardiospermum halicacabum Linn.

Mal : Uzhinja

San : Sakralatha

Distribution : Sometimes seen in forest plantations. Mostly found in waste lands and roadsides.

Soil requirements : Loamy sand, slightly acidic soils usually poorly drained. medium in potash, low in phosphate and high in organic carbon.

Description : A herbaceous tendril climber. Leaves alternate, biternate; leaflets deeply cut into segments, coarsely dentate, glabrous. Flowers white, in few flowered umbellate cymes, peduncle with two circinate tendrils. Fruit a membraneous inflated trigonous capsule.

Properties : Leaf is rubifacient. Root is diaphoretic, diuretic, laxative rubifacient and emmenagogus.

Uses : Plant is effective in the treatment of rheumatism. Leaf juice is used as a cure for earache. Root is occasionally used to treat lumbago and nervous disorders.

Dimocarpus longan Lour.

Syn. *Euphoria longan* (Lour.) Steud.

Nephelium longana Gamb.

Mal : Chempunna, Porippuvam

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils; favours loamy soils strongly acidic.

Description : A medium sized tree; bark smooth, greyish brown. Leaves elternate, pinnate: leaflets 5-11, oblong, lanceolate., entire, glabrous, 6-18 x 2.5-5 cm. Flowers yellowish white, in terminal and axillary tomentose panicles. Fruit reddish brown. tubercled, about 2 cm in diameter.

Properties : Fruit is stomachic and anthelmintic. Aril is refrigerant and has tonic properties.

Dodonaea viscosa N. Jacq.

Mal :Vrali

Distribution : Southern montane wet scrub and Southern montane temperate forests.

Soil requirements : Loamy sand, medium acidic soils in the slopes, low in potash, phosphate and organic carbon.

Description : A large shrub or a small tree: bark thin, grey, peeling off in long thin strips. branchlets angular. young shoots resinous. Leaves simple. alternate, oblanceolate to linear, glabrous, entire. 3.5-10 x 0.6-3-5 cm Mowers yellowish green, in short panicles. Fruit a pale brown membraneous. 2-3 winged capsule.

Properties : Leaf is febrifuge and sudorific.

Uses : Bark is used in astringent baths and fomentation. Leaves are used to treat gout, rheumatsim. swellings. burns and wounds. It is believed that the powdered leaves applied over a wound will heal it without leaving a scar, in South Africa the plant is used for stomach disorders. It is considered to be having antifertility properties (Nagarajam *et.al.* 1977).

Sapindus laurifolius Vahl

Syn. *S. trifoliatus* auct. non Linn.

Mal : Pasakkotta. Uruvanchi

Distribution : West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Soil requirements : Sandy loam, slightly acidic soils, low in potash and phosphate and high in organic carbon.

Description : A small to medium sized tree; bark grey. Leaves pinnate; leaflets 2-3 pairs, lanceolate, acuminate, minutely pubescent or glabrous below, 7-15 x 2.5-8 cm. Flowers creamy white, in terminal pubescent panicles. Fruits fleshy, 2-3 lobed, with 1-seed in each lobe; seeds black. smooth. shining. (Plate VI, Fig. 3)

Properties : Fruit is alexipharmic, expectorant. emetic. purgative and nauseant. Root is expectorant, and anthelmintic,

Uses: Fruit is used as errhine in leprosy, asthma. hysteria and hemicrania. Externally it is used as a detergenr. Etheral extract of the pericarp is used extensively in the-preparation of certain fungicides and insecticides. Root is used as a collyrium in sore eyes and ophthalmia.

Schleichera oleosa (Lour.) Oken

Syn. *S. trijuga* Willd.

Mal : Poovam

San : Mukulaka

Distribution : West coast semi-evergreen, Moist teak bearing and Southern secondary moist mixed deciduous forests.

Soil requirements : Loamy sand. medium acidic soils. loose with good drainage, medium in organic carbon.

Description : A medium sized to large tree. stem often fluted. Leaves pinnate; leaflets 4-8. opposite, oblong, obtuse. young leaves bright red. Flowers small, yellow, in fascicles on slender racemes. Fruit about 2 cm in diameter. slightly echinata.

Properties: Bark is astringent.

Uses : Bark is used as an external applicant for itch. An infusion of bark is prescribed against malaria. Oil from seeds is a stimulating agent for the scalp.

Anacardiaceae

Buchanania lanceolata Wight

Mal : Kulamavu. Malamavu

Distribution : West coast tropical evergreen forests in South Kerala.

Soil requirements : In the slopes with **good** drainage.

Description : A moderate sized tree: bark rough. Leaves simple. alternate, oblong-lanceolate. acuminate, glabrous, 9-15 x 3.5-5 cm. Flowers white, in terminal and axillary branched panicles. Fruit a globose drupe. red. 1.5 cm in diameter.

Properties : Ripe fruit improves digestive power.

Uses : Bark is applied to swellings and dislocated parts. Ripe fruit is used against rheumatism.

Buchanania lanzan Spreng.

Syn *B. latifolia* Roxb.

Mal : Mural. Moongapezhu.

San : Priyala

Distribution : Southern moist mixed deciduous and Moist teak bearing forests. occasional in Laterite thorn forests.

Soil requirements : Sandy clay loam soils with good drainage, medium acidic. low in potash and organic carbon and medium in phosphate.

Description : A moderate sized tree; bark black, rough, tessellated with prominent squares: red inside. Leaves simple. alternate, oblong, obtuse or emarginate at apex, entire, 15-25 x 5-7 cm. Flowers greenish white in pubescent. terminal and axillary panicles. Fruit a laterally compressed drupe. black, 1.3 cm long.

Properties : Leaf juice is digestive, expectorant. aphrodisiac. purgative, purifies blood and lessens biliousness. Fruit is laxative. and aphrodisiac. Seeds are expectorant, aphrodisiac. stomachic and tonic to the body and brain.

Uses : Gum obtained from the tree is given in cases of diarrhoea. Fruit is used against rheumatism. It is applied to the tongue when inflamed or very hard. Seeds are useful in the treatment of gleet and urinary concreations. Kernel is used to treat skin diseases. Root is given against biliousness,

Holigarna arnottiana Hook. f.

Mal : Cheru

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils. favours clay loam. slightly acidic soils usually in moist places.

Description : A large evergreen tree; bark rough. exudes a black exudation when cut. Leaves simple, crowded at the tip of branches, obovate or oblong-lanceolate: petiole with a pair of spur like appendages. Flowers small. yellowish brown in axillary panicles. Fruit an obliquely ovoid drupe. 2.5 cm long.

Propertries : Juice of the plants is vesicant.

Lannea coromandelica (Houtt.) Merr.

Syn. *Odina wodier* Roxb.

Mal : Katash. Karilavu, Udi

Distribution : Southern moist mixed deciduous and Southern secondary moist mixed deciduous forest. occasionally in Laterite thorn forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, low in potash and very high in phosphate.

Description : A large deciduous tree: bark grey. smooth, flaking off in thin small flakes: inner bark red. Leaves pinnate: 25-45 cm long: leaflets 7-9, oblong, acuminate. Flowers yellow, in racemes. Fruit an ovoid or subreniform drupe, red, 1.3 cm long.

Properties : Bark is astringent.

Uses: Bark is used as a lotion in impetigenous eruptions and in leprous and obstinate ulcers. A decoction of bark is used against toothache. asthma and dysentery. Gum is applied to sprains and bruises. Leaves are used to treat elephantiasis.

Mangifera indica Linn.

Mal : Mavu

San : Amra.

Distribution : West coast tropical evergreen and West coast semievergreen forests: cultivated extensively.

Soil requirements : Variety of soils favours loamy soils with good

drainage, slightly acidic. low in potash, medium in phosphate and organic carbon.

Description : A large evergreen tree; bark rough. dark grey or brown, exudes a reddish gummy exudation when cut. Leaves entire. glabrous. Flowers small, yellow or reddish yellow in terminal panicles. Fruit a large one seeded drupe.

Properties : Bark of the tree is antiscorbutic. astringent and styptic. Leaves. fruit and seeds are astringent. Ripe fruit is laxative and diuretic. Rind of the fruit is stimulant and acts as a tonic in debility of stomach. kernel is anthelmintic.

Uses : Bark is used to treat uterine haemorrhage. haemoptysis. rnelaena and diarrhoea. The resinous juice from the bark is considered antisyphilitic. It is used in North Kerala as a specific drug for diarrhoea and dysentery. Leaves are used in the treatment of piles. rheumatism and bronchial troubles. Ripe fruit is used to stop haernorrhage from uterus, lungs and intestine. A decoction of the kernel is generally prescribed against diarrhoea.

Semecarpus anacardium Linn. f.

Mal : Thenkotta. Alakkkucheru

San : Rujakara

Distribution : Southern moist mixed deciduous forests.

Soil requirements : Silty loam soils with good drainage, slightly acidic, high in potash, phosphate and organic carbon.

Description : A medium sized deciduous tree; bark dark brown, rough, flaking off in irregular thin flakes, Leaves oblong, rounded at the tip, tomentose beneath. 15-45 x 10-25 cm. Flowers greenish yellow in terminal tomentose panicles. Fruit a purplish black drupe, 2.5 cm long. seated on a fleshy orange receptacle as long,as the drupe.

Properties : Seeds are vermifuge and abortifacient. Oil from seeds is vesicant, anthelmintic and aphrodisiac.

Uses : Fruit is used in the treatment of rheumatism, skin diseases. piles, dysentery. loss of appetite. urinary discharges, insanity and asthma. Seeds are recommended in the treatment of cancer (Balakrishnan. 1975). Oil from seeds is used against leucoderma. epilepsy, rheumatism and other nervous diseases.

Semecarpus travancoricus Bedd.

Mal : Avukkaram

Distribution : West coast tropical evergreen forests in South and Central Kerala.

Soil requirements : Variety of soil. low lying poorly drained sandy loam to clay, strongly acidic.

Description : A large tree; bark grey. blotched with black. Leaves simple, oblong-obovate. -shining, entire, glabrous, 30-50 x 12-75 cm. Flowers small, yellowish, in terminal, glabrous panicles. Fruit an oblique black drupe, 2.5 cm long. receptacle shorter than the drupe.

Properties and Uses: Same as for *Semecarpus anacardium* Linn. f.

Spondias pinnata (Linn.f.) Kurz

Syn. S. *mangifera* Willd.

Mal : Ambazham

San : Ambashtha

Distribution : West coast semi-evergreen and Moist teak bearing forests.

Soil requirements : The soil supporting this species is variable in texture and structure. detailed information on its soil requirement is lacking.

Description : A large deciduous tree; bark grey, smooth. Leaves pinnate: leaflets 5-11, oblong, caudate, acuminate. entire. with an intramarginal nerve, 5-12 x 2.6-7cm. Flowers small, yellowish. in terminal panicles. Fruit an ovoid or oblong fleshy drupe. 3.5-5 cm long.

Properties : Bark is refrigerant. Fruit is antiscorbutic, aphrodisiac and astringent.

Uses : Leaf juice is used against earache. Bark is used to treat dysentery and both articular and muscular rheumatism. Unripe fruit enriches the blood, cures rheumatism and sore throat. Ripe fruit is used against bilious dyspepsia.

Connaraceae

Connarus monocorpus Linn.

Mal : Kuriel, Valamkadikkaya

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description : A straggling shrub. Leaves pinnate; leaflets 5, elliptic, obtusely acuminate, rounded at base, 6-10 x 3-4 cm. Flowers in axillary and terminal panicles. Fruit an oblique, inflated follicle. red, 3.5-5 cm long. (Plate VI. Fig. 4)

Uses : Wood and bark are used in the treatment of ulcers. Pulp of the fruit is used against eye diseases. A decoction of the root is given in cases of syphilis. Oil from root is applied over swellings.

Rourea minor (Gaertn.) Alston

Syn. *R. santaloides* (Vahl) Wight & Arn.

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests,

Description : A climbing shrub. Leaves alternate, pinnate; leaflets 5-9. elliptic. obtusely acuminate. Flowers small. in axillary racemose panicles. Fruit a follicle, conical-ovoid, falcately curved, 2 cm long; seeds arillate.

Property : Root has tonic property.

Uses : Root is used in the treatment of rheumatism, diabetes, scurvey. pulmonary complaints, ulcers and other skin diseases.

Papilionaceae

Abrus precatorius Linn.

Mal : Kunni

San : Gunja

Distribution : Mostly found along the hedges and fences, sometimes seen in forest plantations.

Soil requirements : Variety of soils, usually in sandy soils with good drainage, slightly acidic, high in potash and phosphate.

Description : A perennial twining shrub. Leaves paripinnate. 6-10 cm long: leaflets 10-20 pairs. opposite, oblong, mucronate. about 2 cm long. Ftowers pink or creamy white, in dense racemes. Fruit a turgid pod, 2.5-4 cm long; seeds 3-5, globose, scarlet. with a black end.

Properties : Leaf juice is a blood purifier. Seeds are purgative, emetic

and aphrodisiac. Root is emetic. antipyretic, aphrodisiac and alexiteric.

Uses : Pounded leaves are applied to painful swellings. Seeds are used to treat nervous disorders. They act as a contraceptive also. In Brazil the seeds are a popular cure for granular lids. Root is used against sore throat, asthma. fever and skin diseases.

Atylosia goensis (Oalz.) Dalz.

Syn. *A. harbata* Baker

Mal : Kattuzhunnu

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Soil requirements : Sandy soils, usually in the slopes with good drainags. medium acidic with medium potash and low phosphate contents.

Description : A twining pubescent shrub. Leaves alternate, 3-foliolate; leaflets broadly ovate, acuminate. pubescent. Flowers yellow. in many flowered racemes. Fruit 3-5 cm long, densely clothed with yellowish viscid hairs; seeds 4-6, black.

Uses : Used in the treatment of rheumatism, biliousness. fever, consumption and swellings.

Butea monosperma (Lamk.) Taub.

Syn. *B frondosa* Koan. ex Roxb.

Mal : Plasu

San : Palasa. Thapasavriksha

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, low in patash and phosphate and high in organic carbon.

Description : A small to medium sized tree: bark greyish brown, exudes a red gum when cut. Leaves alternate. 3-foliolate; leaflets broadly ovate. finely pubescent beneath. Flowers large, orange-red, in showy densely fascicled racemes. Fruit oblong. flattened, 12-20 cm long with single seed.

Properties : Bark is astringent, alterative, aperient. aphrodisiac and anthetmintic (Mooss, 1978). Gum, leaves and flowers are astringent. Leaf is tonic, carminative, anthelmintic and aphrodisiac. Flowers are. diurotic, depurative. aphrodisiac and emmenagogue. Seeds are anthelmintic and laxative.

Uses: Bark is useful in the treatment of inflammation. abdominal tumour. biliousness, dysmenorrhoea. intestinal worms, bleeding piles and ulcers and haemorrhages (Mooss. 1978). Gum is given in cases of diarrhoea and dysentery (Chopra et al.. 1956). Leaves are used against boils and piles. Flowers are recommended in the treatment of biliousness, abnormal thrist and painful micturition (Mooss.1978). Powdered seeds mixed with the juice of the rhizome of *Cyperus ratundus* is administered against delirium. Seeds are also used against abdominal turnours, intestinal worms. certain urinary diseases and piles (Mooss, 1978). Root is useful in the treatment of cataract.

Crotalaria retusa Linn

Mal : Kilukilukki

San : Sanapushpi

Distribution : West cost tropical evergreen, West coast semievergreen and Southern moist deciduous forests.

Soil requirements: Loamy, medium acidic soils. low in potash and phosphate and medium in organic carbon.

Description An undershrub. Leaves simple alternate, oblanceolate. obtuse or retuse at apex, grey puberulous beneath,5-10 x 2-3 cm. Flowers bright yellow, in showy terminal racencs. Fruit a linear oblong pod. 2.5-3.5 cm long, glabrous; seeds 10-20.

Uses: Plant is used to treat scabies and impetigo.

Crotalaria verrucosa Linn.

Mal Kilukiluppa
San : Sanapushpi

Distribution Southern moist mixed deciduous. Moist teak bearing and Southerii dry mixed deciduous forests.

Soil requirements : Loamy sand slightly acidic soils, along the slopes; medium in potash and very low in phosphate

Description . An udershrub. Leaves simple, alternate, ovate, obtuse, 5-15 x 2.75 cm; stipules foliaceous, semi-lunate, persistent Flowers bluish white in racemes. Fruit an oblong pod, 3-5 cm long pubescent.

Properties : leaf juice is considered to be efficat ious in diminishing sativation.

Uses Leaf juice is used both externally and internally in scabies and impetigo and in the treatment of heat complaints.

Dalbergia lanceolaria Linn. *f.*

Mal Cheruveetti,Velleetti

Distribution : Southern moist mixed deciduous. Southern dry mixed deciduous and Moist teak bearing forests.

Soil requriements: Loose soils with good drainage.

Description . A medium sized tree; bark grey, smooth. Leaves pinnate; leaflets 10-15. ovate-oblong, obtuse, 2-4 x 0.8-2 cm. Flowers small bluish white, in terminal and axillary panicles. Fluil oblong, tapering at both ends 5.10 cm long; seeds 1-3 cm.

Uses . Bark is recommended in intermittent fevers and dyspepsia Oil from the seeds is applied for rheumatic afflictions.

Dalbergia Iatifolia Roxb.

Mal : Veetti. Eetti
San : Sirnsapa, Krishnasara

Distribution : West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Soil requriements : Sandy loam slightly acidic soils with good drainage. loose. low in potash and phosphate and medium in organic carbon.

Description : A large deciduous tree hark grey with shallow irregular cracks. Leaves alternate, pinnate; leaflets 5-7. ovate-orbicular, glabrous. 3-5 cm long. nearly as broad as long Flowers small. creamy white in corymbose panicles, fascicled in the axils of older leaves. Fruit cblong. usually obtuse at apex, 3.5-7 cm long, seeds 13.

Properties Whole plant is bitter and stomachic. It has also got tonic properties.

Uses . Plant is used to treat dyspepsia, diarrhoea. leprosy, obesrty and worms.

Dalbergia sympathetica Nimmo ex Grah.

Syn. *D. muluflora* Heyna ex Wall.

Mal : Anamullu

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests

Soil requriements: Sandy loam medium acidic soils. very low in potash and phosphate.

Description : **A** iarye climbing shrub, the branches often twisted trunk armed with 15-30 cm long curved spines in clusters. Leaves alternate, pinriate, leaflets 11-15, elliptic-oblong, emarginate 1-3 x 0.5-2 cm. Flowers small, white. in axillary cymose pubescent panicles. Fruit samaroid. broadly oblong. pubescent; seeds 1-2. (Plate VII. Fig. 2)

Properties : Leaves are alterative. Bark is said to remove pimples.

Dalbergia volubilis Roxb.

Mal : Mithi. Cherumullu

Distribution: Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Description: A large climbing shrub, branches sometimes twisted into spiral hooks. Leaves alternate, pinnate; leaflets 11-13. ovate-oblong. obtuse. mucronulate. 2.5-5 x 2-2.5 cm. Flowers small, pale blue. in terminal and axillary panicles. Fruit linear -oblong. obtuse at apex 5-7 cm long; seeds 1-2. (Plate VII. Fig. 1)

Uses : Leaf juice is used as a gargle in sore throat and applied to aphthae. Root juice mixed with cumin and sugar is administered in case of gonorrhoea.

Derris trifoliata Lour.

Syn, *D uliginosa* Benth.

Mal : Kammatti

Distribution : Mostly seen along the sides of backwaters near sea-coast.

Description : A large climbing shrub. Leaves alternate, pinnate; leaflets 5-7, ovate-acuminate, 5-10 x 2-5 cm. Flowers rose coloured, in axillary racemes. Fruit broad, obliquely ovate or orbicular. winged along the upper suture, 2-3 cm, as broad as long: seed one.

Properties :. Plant is stimulant, antispasmodic and counter irritant. Root bark is alterative and insecticidal.

Uses : An oil prepared from the plant is used externally as an embrocation. .Root bark is recommended in cases of rheumatism and dysmenorrhoea.

Desmodium gangeticum (Linn.) DC.

Mal : Orila

San : Prsniparni

Distribution : Moist teak bearing and Southern moist mixed deciduous forests.

Soil requriemetns : Loamy soils with good drainage, medium acidic. low in potash and phosphate.

Description : An undershrub with angular stem. Leaves simple, alternate, ovate or lanceolate. acute. tounded or cordate at base, 5-10 x 2.5-5 cm. Flowers bluish pink. in terminal racemes. Fruit with *6-8* joints, sparsely clothed with hooked hairs. (Plate VIII, Fig. 1)

Properties : The root is one of the Dasamoola. It is astringent. tonic diuretic, anticatarrihal. alternative. aphrodisiac. anthelmintic and alexipharmic.

Uses: Root is recommended in case of chronic fever. biliousness.

Cough, vomiting. asthma and rheumatism. It is an ingredient of Cyavanaprasam.

Desmodium heterocarpon (Linn.) DC,
Syn. *D.polycarpum* DC.
Mal : Nilathuvara

Disiribution : Southern moist mixed deciduous. Southern dry mixed deciduous and Moist teak bearing forests.

Soil requirements : Clayey soils with poor drainage. medium acidic, medium in potash, low in phosphate and organic carbon.

Description : An erect or trailing undershrub. Leaves alternate, trifoliolate; leaflets elliptic or obovate, obtuse. sparsely pubescent beneath, 2.5-5 x 2-2.5 cm. Flowers purple. in dense axillary and terminal. subsessile racemes. Fruit with 5-8 joints, ciliate on both tha sutures. (Plate VIII, Fig. 2)

Properties : Decoction of the plant is considered to be a tonic

Uses : Decoction of the plant is given for cough. fafntinq and convulsions.

Desmodium motorium (Houtt.) Merr.
Syn. *D gyrans* DC.
Mal : Remanamappacha, Thozhukanni

Distribution : West coast semi-evergreen. Southern moist mixed deciduous and Moist teak bearing forests.

Description : An erect undershrub. Leaves alternate. trifoliolate. terminal leaflets 1.2-2 cm by 0.3; Flowers pink, in lax terminal and axillary racemes. Fruits slightly falcate. joints 5-10. inconspicuous.

Uses : This plant is considered as a nervine Ionic by the local Ayurvedic practitioners.

Desmodium styracifolium (Osb.) Merr.
Syn. *D. retroflexum*(Linn.) DC.

Distribution :'Moist teak bearing and Southern moist mixed deciduous forests in North Kerala.

Soil requirements : Sandy soils with good drainage, slightly acidic. very low in potash and high in phosphate.

Description : A large shrub. Leaves usually one foliate, sometimes trifoliolate: leaflets orbicular cordate, densely white pubescent beneath. the lateral leaflets much smaller than the terminal one. Flowers purple. in short crowded racemes. Fruit with **3-5**joints. slightly pubescent.

Properties : Root is deobstruent, emmenagogue. stomachic and aperient,

Dcsmodium triflorum (Lion.) DC.
Mal : Nilamparanta. Cherupullati
San : Tripadi

Distribution : Mostly confined to moist areas in the plains. Sometimes seen in forest plantations.

Soil requirements: Clayey soils, slightly acidic, low in potash and very low in phosphate.

Description : A much branched trailing herb. Leaves alternate. trifoliolate; leaflets obovate cuneate, truncate or emarginate at apex. 0.4-0.6 cm on either way. Flowers pink or white. in axillary clusters of 1-3 Fruit 3-5 jointed.

Properties : Leaf is galactagogue

Uses : Leaves are used against-diarrhoea and dysentery. Fresh leaves

are pounded and applied to wounds and abscesses.

Desmodium triquetrum (Linn.) DC.

Mal : Adakkapanal

Distribution : Moist teak bearing, West coast semievergreen. and **Sou-** thern moist mixed deciduous forests.

Soil requirements : Loamy soils, medium acidic. low in potash. very low in phosphate and medium in organic carbon.

Description : An erect shrub with triangular stem. Leaves alternate. one foliolate. elliptic-oblong, lanceolate, cordate at base, 10-18 cm long:

Uses : Extract of the leaves is used against piles.

Desmodium velutinum (Willd.) DC.

(D. latifolium DC.)

Mal : Orila

Distribution : West coast semi-evergreen. Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Loamy soils with good drainage.

Description : An erect under-shrub. Leaves simple. alternate. broadly ovate, obtuse or subacute at apex, cordate or truncate at base, densely clothed with hooked hairs, 3.5-12 x 3-9 cm. Flowers bluish in terminal and axillary racemes. upto 25 cm long. Fruits straight. 4-6 jointed, densely covered with hooked hairs, 1.5-2 cm by 2-3 mm. (Plate VIII, Fig. 3)

Uses : The roots mixed with pepper are used to treat urinary dis-Bases.

Dolichos trilobus Linn.

Syn. *D. falcatus* auct. non Klein ex Willd.

Mal : Kattamara

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Southern hill-top tropical evergreen forests.

Soil requirements : Sandy loam soils, medium acidic, medium in potash, low in phosphate and high in .organic carbon.

Description : A twining herb wirh tuberous roots. Leaves 3-foliolate; leaflets broadly deltoid, ovate. 3.5 x 2 cm. Flowers pink or lilac, in axillary racemes. Fruit linear, glabrous, 5-8 cm long; seeds many.

Uses: Decoction of seeds is specific for rheumatism. Roots are used in the treatment of piles. constipation, ophthalmia and skin diseases.

Flemingia grahamiana Wight & Arn.

Distribution : Southern hill-top tropical evergreen and Southern montane wet scrub forests.

Soil requirements : Clay loam medium acidic soils.

Description : An erect under-shrub. Leaves alternate, 3-foliolate; leaflets ovate-obtuse or subacute. pubescent beneath. Flowers pink, in short axillary racemes. Fruit turgid. about 1 cm long, covered with rea glands.

Properties : Resinous pcwder from the glands of the fruit is anthe-Imintic.

Uses : Plant is used externally for skin diseases and internally as purgative. It is specific for colds (de Sorney, 1916).

Flemingia strobilifera (Linn.) Ait.

Mal : Kamalu

Distribution : Moist teak bearing and Southern moist mixed deciduous forests. Also seen in forest plantations.

Description : An erect branching shrub. Leaves alternate, 1-foliolate, ovate-oblong, lanceolate, 8-13 x 2-4.5 cm. Flowers white, in axillary and terminal racemes with conspicuous floral leaves. Fruit oblong, turgid, 0.8 cm long. densely pubescent.

Uses: The leaves are reported to be used in Java as vermifuge for children (Burkill, 1935). The Assamese use the root to induce sleep. Root is used against epilepsy and hysteria.

Indigofera cassioides, Rottl. ex DC.

Syn. *I. pulchella* auct, non Roxb.

Mal : Manali

Distribution : Southern dry mixed deciduous forest.

Soil requirements : Loamy sand, slightly alkaline soils. low in potash, phosphate and organic carbon.

Description : An erect shrub with striate branches. Leaves pinnate; leaflets many, ovate-oblong. obtuse or ernarginate. 1-2.5 x 0.8-1.2 cm. Flowers purple in axillary racemes. Fruit turgid. cylindric. glabrous, 2.5-4 cm long; seeds 8-12.

Uses: A decoction of root is given in cases of cough and its powder is applied externally for chest pain.

Indigofera Linnaei Ali

Syn. *I. enneaphylla* Linn.

Mal : Cherupullati

Distribution : Southern dry mixed deciduous and Dry deciduous scrub forests.

Soil requirements : Sandy loam soils. usually in the slopes, slightly alkaline, low in phosphate and medium in potash and organic carbon.

Description : An undershrub with thick root stock and prostrate branches. Leaves pinnate. 1.2-2 cm long; leaflets 7-9. Flowers bright red. in shortly peduncled, 10-20 flowered spicate heads. Fruit 3-4 mm long, clothed with white adpressed hairs: seeds 2.

Properiies ; Plant juice is antiscorbutic. alterative and diuretic.

Uses : The plant is boiled with oil and applied lo burns. A decoction is given in cases of epilepsy and insanity. It purifies blood.

Indigofera tinctoria Linn.

Mal : Arnari, Neela Amari

San : Neelika. Neela

Distribution : Very rare in the forests, mostly cultivated and grows in villages.

Soil requirements : Variety of soils.

Description : A branched shrub. Leaves pinnate; leaflets 7-11, elliptic-ovate, apiculate. 1-2.5x 0.5-1.2 cm. Flowers pink. in spicate racemes. Fruit cylindrical, glabrous; seeds 8-12.

Properties : Stem and root are laxative, expectorant, alexipharmic and anthelmintic.

Uses: Extract of the plant is given in cases of epilepsy, nervous disorders, chronic bronchitis. asthma, piles. leucoderma. burns, scalds. lum-

bago, enlargement of the spleen and liver and flatulence. It is used as an ointment in sores and old ulcers. Leaf juice is used in the treatment of hydrophobia. Stem and root æ used to promote growth of hair and to treat abdominal disorders, heart diseases, rheumatism, tumours and cephalalgia.

Mucuna monosperma DC. ex Wight

Mal : Malanthalli

San : Dathipushpika

Distribution : Southern moist mixed deciduous and Moist teak bearing forests in North Kerala.

Description : A large perennial twining shrub, young branches covered with rusty brown tomentum. Leaves 3-foliolate: leaflets ovate-oblong or elliptic, shortly acuminate. rounded a? base. pubescent beneath, 6-9 x 5-7.5 cm. flowers purple. in 6-12 flowered axillary corymbose racemes; calyx with irritant bristles. Fruit nearly orbicular. winged *on* both sutures, 5-7 cm in diameter: seed 1, dark brown, smooth.

Properties : Seeds are reported to have sedative properties.

uses: Seeds are used as an expectorant in cough and asthma.

Mucuna pruriens (Linn.) DC.

Syn. M. *purita* Hook.

Mal : Choriyanam, Naikorana

San : Athmaguptha, Kandukari

Distribution ; West coast semi-evergreen, and Southern moist mixed deciduous and Moist teak bearing forests,

Soil requirements : Strongly acidic to slightly acidic soils.

Description : A slender climber with a perennial rootstock. Leaves 3-foliolate: leaflets- rhomboid-ovate. densely hairy beneath, 7-12 x 5-7 cm. Flowers purple, in **6-30** flowered racemes; calyx with irritant hairs Fruit falcately curved, turgid densly covered with irritant bristles 5-7 x 1 cm: seeds small. 5-6. (Plate VII. Fig. 3).

Properties : Pods are anthelmintic, Seeds are aphrodisiac and act as a nervine tonic. They possess slight insecticidal property. Root acts as a purgative.

Uses : The plant is used to improve semen and sexual vigour (Narayana Aiyar and Kolammal, 1962). An infusion of hairs covering the pods is used for diseases of liver and gall bladder and applied externally as a local stimulant and mild vesicant. Hairs covering the fruit contain a highly irritating proteolytic enzyme called mucunain. Seeds contain L-DOPA (5-6 %) and were found to be effective in parkinson's disease. Root is prescribed against delirium. In dropsy it is applied as a paste over the body. It is also used in the treatment of paralysis also. An ointment prepared from the roots is applied for elephantiasis.

Phyllodium polchellum (Linn.) Desv.

Syn *Desmodium pulchellum* (Linn.) Benth.

Distribution :West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests. Also in forest plantations.

Soil requirements : Variety oi soils with good drainage.

Description : A shrub. Leaves alternate. 3-foliolate; leaflets mate.

pubescent beneath. Flowers yellow, in clusters in the axils of compound leafy racemes. Fruit 1-jointed, pubescent; seeds 2.

Uses : Decoction of the bark is used to treat haemorrhage, diarrhoea. poisoning and eye diseases. Flowers are useful in the treatment of biliousness.

Pongamia pinnata (Linn.) Pierre

Syn. *P. glabra* Vent.

Mal : Ungu. Pongu

San : Karanjah. Prakirya

Distribution : West coast semievergreen forests. Often planted as avenue trees.

Soil requirements : Loamy soils with good drainage. slightly acidic, high in potash and low in phosphate,

Description : A small to medium sized tree; bark grey, speckled with brown. Leaves pinnate; leaflets 5-7, ovate to rounded. glabrous and shining, 5-12 x 2.5-5 cm. Flowers pinkish white, in axillary racemes. Fruit compressed. oblong or obovoid, narrowed at the base: 1-seeded. (Plate VIII. Fig. 4)

Propertirs: Seeds are carminative.

Uses : Fresh bark is given internalty for bleeding piles, Leaves in the form of a poultice is applied to ulcers infested with worms. The fruit is used against urinary diseases (Narayana Aiyar & Kolammal, 1960). Seeds are **used** to purify btood.

Pterocarpus marsupium Roxb.

Mal : Venga

San : Asana

Distribution : Southern. moist mixed deciduous. Moist teak bearing, West coast semievergreen and Southern dry mixed deciduous forests.

Soil requirements : Loamy sand slightly acidic soils along the slopes: medium in potash and low in phosphate.

Description : A large deciduous tree; bark dark brown or grey, deeply cracked in old trees. peels off in small flakes, exudes a red gummy exudation when cut. Leaves alternate. pinnate; leaflets 5-7, elliptic, obtuse, lateral nerves many, close and parallel 7.5-12 x 3.5-6.5 cm Flowers orange-yellow in axillary and terminal panicles. Fruit orbicular, winged. 2 5-5 cm in diameter; 1-seeded.

Properties : Gum is a good astringent, antipyretic. anthelmintic, styptic, vulnerant and tonic to the liver. Bark also is reported to be an astringent. 1-Epicatechin isolated from the bark acts as an antidiabetic drug (Chakravarthy. *et al.*, 1981). The clinical trials of heart wood extract show that the drug reduces urine sugar percentage while its effect on blood sugar is less marked (Rajasekharan & Tuli, 1976).

Uses : Gum is used against biliousness, gripping, gleet, urinary discharges. rheumatism, bronchitis, diseases of the biood, leucoderma crysipelas and leprosy: bruised leaves serve as a useful external application to boils, sores and skin diseases.

Pseudarthria viscida (Linn.) Wight & Arn.

Mal : Moovila

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests. Also seen in forest plantations.

Soil requirements Loose soils with good drainage.

Description : A viscid pubescent undershrub. Leaves alternate, 3-foliolate; leaflets rhomboid ovate, the terminal leaflet 3.5-7.6 x 3-5 cm: the lateral leaflets 2-5-4 x 2-3.5 cm. Flowers purple, fascicled in terminal and axillary racemes or panicles. Fruit linear-oblong. flattened. covered with viscous hairs; seeds 4-6, brownish black (Plate VII, Fig. 4)

Uses : Root is used in the treatment of bitiousness. rheumatism. heart diseases. asthma. fever, diarrhoea, worms and piles.

Pueraria tuberosa (floxb.) DC.

Mal : Pannikizhangu

Distribution : Occasional in Southern dry mixed deciduous and Southern moist mixed deciduous forests. Grown as a cover crop in Rubber plantations.

Soil requirements : Variety of soils, favours loamy soils with good drainage, medium acidic, law in potash and phosphate and high in organic carbon.

Description : A climbing shrub with large tuberous root. Leaves 3-foliolate; leaflets ovate-oblong, broadly ovate. acuminate. pubescent beneath, 10-18 x 8-16 cm. Flowers bluish, in lax racemes. Fruit membraneous. constricted between the seeds. pubescent with brown hairs. 5-7.5 cm long; seeds 3-6.

Properties : Root is demulcent, refrigerant. emetic. tonic and galactagogue.

Uses : Root is used to treat rheumatism.

Spatholobus parviflorus (Roxb.) O. Ktze.

Syn. S. *roxburghii* Benth.

Mal : Athampuvalli

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Description : A large woody climber; bark datk brown, rough. erodes a red gummy exudation when cut. Leaves 3-foliolate; leaflets ovate, acuminate. pubescent beneath, 10.22 x 7.5-15cm. Flowers small. in large axillary and Terminal pubescent panicles. calyx brown velvety pubescent, corolla pink. Fruit oblong, flattened, pubescent. about 15 cm long.

Properties : The plant is credited with insecticidal properties. The acetone extract of the bark is toxic to mosquito larvae.

Uses: Decoction of the bark is used as a remedy in dropsy and bowel complaints. The ashes of the leaves are given in molasses as a vermifuge. Flower is used in the treatment of colic and hysteria.

Teramnus labialis (Linn.) Spreng.

Syn. *T. parviflorus* Spreng.

Mal : Kattuzhunnu

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Loamy soils, strongly acidic, low in potash and phosphate. and high in organic carbon.

Description : A twining herb Leaves 3-foliolate; leaflets ovate or oblong, apiculate 3-6 **6** x 2-2.6 cm. Flowers small, reddish in axillary few flowered racemes Fruit narrowly linear 3.5-6 cm long; 8-12 seeded.

Properties : Plant is galactagogue. Fruit is credited with astringent. siomachic and febrifugal properties.

Uses : The plant is used in the treatment of paralysis, rheumatism. catarrhs. haemoptysis. tuberculosis. bronchitis and burning sensation.

Uraia hamosa Wall.

Mal : Moovila

Distribution . Southern moist mixed deciduous and Moist teak bearing forests. Also in forest plantations.

Soil requirements : Clayey soils with poor drainage. strongly acidic. high in potash and low in phosphate.

Description . An undershrub, with long slender branches. Leaves 3-foliolate; leaflets elliptic, oblong, obtuse, the terminal one larger. Flowers purple. in terminal glandular racemes or panicles Fruits twisted. 4-7 seeded.

Properties . The plant is a febilfuge.

Uraria Iagopodioides (Linn) Desv.

Mal Orila

San Brahmaparni Chithraparni

Distribution Southern dry mixed deciduous and Laterite thorn forests

Description A trailing undershrub Leaves alternate. leaflets one or three. ovate obtuse at apex, mucronate Flowers bluish purple, in short dense racemes Fruit twisted. with 2-3 seeds

Properties Plant is reported to to be abortifacient in ancient ayurvedic texts. It is alterative anticatarrhal. laxative and aphrodisiac It has tonic propertics also

Uses The plant is used against rheumatism, bronchial troubles, asthma, dysenter, thirst vomiting. delirium. malaria fever, ulcers and eye diseases.

Vigna trilobata (Linn,) Verdc.

Syn. *Phaseolus trilobus* Ait.

Mal : Kattu-payar

San : Mulgaparni

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Description : A diffuse trailing herb. Leaves 3-foliolate; leaflets 3-lobed, 1-2.5 cm. usunily as long as broad. the midlobe largest. Flowers yellow. in subcapitate, few flowered racemes. Fruit 2-5 cm long. subcylindric. slightly recurved; seeds 6-12

Properties ; Leaf has tonic and sedative properties.

Uses : Leaf is used to treat eye diseases and decoction is administered in irregular iever.

Zornia diphylla (Linn) Pers.

. *Distribution* ˙ Southern dry mixed decidaous arid Larerite thorn forests.

Soil requirements . Sandy loam soilsalong the slopes. medium acidic. low in potash and phosphate and medium in organic carbon.

Description . A small diffuse herb. Leaves 2-foliolate: leaflets lanceolate or ovate, acuminate. 1-1.5 cm long. Flowers small. yellow. in 3-10 flowered spicate racemes with prominent bracts. Fruit 1-6 jointed. covered with short fulvous hairs.

Uses : The plant is used for the treatment ot dysentery. Root is given to children to induce sleep.

Caesalpiniaceae

Bauhinia racemosa Lamk.

Mal: Mandaram

Distribution . Southern moist mixed deciduous, Moist teak bearing and Southern dry mixed deciduous forests.

Soil requirements: In the slopes having good amount *of* gravel. strongly acidic soils high in potash and low in phosphate and organic carbon.

Description: A small tree, bark dark brown, rough. Leaves alternate. orbicular. bilobed, palmately veined, 3.5-6 cm in either way. Flowers small, yellowish-white. in axillary racemes. Fruit linear-oblong, flattened, 15-30 cm long, many seeded.

Properties : Bark and leaves are astringent, alexipharmic and vermicidal. Fruit is refrigerant and astringent *to* the bowels.

Uses. Decoction of leaves is given against headache arid malaria. Bark and leaves are used to treat biliousness. diarrhoea, dysentery. urinary discharges, fistula. tuberculous glands and diseases of the blood. Fruit is recommended in cases of rheumatism and bronchial troubles.

Caesalpinia bonduc (Linn.) Roxb.

Syn. C crista Linn.

Mal . Kazhanchi

Ssn : Kuberakshi, Lathakaranja

Distribution Mostly seen in scrub jungles in villages. Occasional in the Southern dry mixed deciduous forest.

Description : A scandent prickly shrub. Leaves bipinnate, pinnae 6-8 pairs; leaflets 6-10 pairs, elliptic.-oblong, obtuse. 2-4.5 cm long Flowers yellow. in long peduncled terminal and supra axillary racemes. Fruit oblong, densely prickly; seeds 1-2, grey, about 1 cm in diameter.

Properties ; Bark and leaves are emrnenagogue, febrifuge and anthelmintic. Seeds are antiperiodic, antipyretic. and febrifuge. Oil from seeds is emollient. Root bark is antiperiodic.

Uses : Tender ieaves are used to rectify the disorders of the liver. Leaves and seeds are used in external applications for treating inflammatory swellings. Oil obtained from the leaves *is* useful in convulsions and nervous complaints. Oil from seeds is used as embrocation to remove freckles from the face and for stopping discharges from the ear. Root bark is used to treat tumours.

Cassia absus Linn.

Mal : Karinkolla. Kattumuthira

Distribution . Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Variety of soils. usually in dry areas.

Description . An undershrub. Leaves pinnate; leaflets two pairs. very oblique, elliptic-oblong or elliptic -ovate 1.5-3.5x 0.8-2.5 cm. Flowers reddish yellow. in terminal or leaf opposed racemes Fruit ligulate. compressed, covered with bristly hairs, seeds 4-6. ovoid. black. shining.

Properties : Leaves are bitter, astringent and cholagogue. Seeds are astringent and cathartic .

Uses · Leaves are used as a remedy for cough. Seeds are applied in cases of ringworm. skin affections, conjunctivities and ophthalmia.

Cassia fistula Linn

Syn: *C.rhombifolia* Roxb.

Mal: Kanikkonna, Konna

San : Aragwadha

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils. favours sandy loam medium acidic soils, low in potash and phosphate and high in organic carbon.

Description : A small *to* medium sized deciduous tree; bark reddish-grey, smooth in young tree, becoming rough and flaking off in strips in old trees. Leaves pinnate: leaflets 4-8 pairs, ovate acute. 5-10 x 3.5-7 cm. Flowers yellow, in terminal and leaf opposed pendulous racemes. Fruit cylindric, 25-60 cm long. many seeded. (Plate X. Fig. 1)

Properties . Fruit is cathartic. Seeds are emetic. Leaves, seeds, pulp of the fruit and root bark are considered to be laxative. Root is astringent, febrifuge and purgative.

Uses : Bark is used against asthma (Balakrishnan 1975). Leaf juice is recommended for skin diseases. It lessens the inflammation. A poultice made of the leaves is said to relieve the chilblains which are common in Upper Sind. It has Seen beneficially used in facial paralysis and rheumatism. Fruit also is applied in cases of rheumatism. Root is used *to* treat skin diseases leprosy. tuberculous glands and syphilis.

Cassia mimosoides Linn.

Mal : Cheruthakara

Distribution . Southern montane wef grassland and Southern montane wet scrub forests.

Soil requirements : Loamy sails. poorly drained, compact, strongly acidic.

Description : A diffuse undershrub. Leaves pinnate: leaflets numerous (40-60 pairs). linear, very unequal sided. Flowers yellow, axillary, solitary or 2-3 together. Fruit linear. flattened. sparsely pubescent, *2-6* cm long; seeds 15-25.

Uses : Roots are given in spasms of stomach.

Cassia occidentalis Linn.

Mal : Ponnaveeram, Nathramthakara

Distribution : Mostly seen in forest piantations.

Soil requirements . Medium acidic soils, low in potash. phosphate and organic carbon.

Description : An undurshrub. Leaves pinnate; leaflets 3-5 pairs, ovate: acuminate. 2.5-10x 2.2-3.5 cm: petiole with a gland near the base. Fiowers yellow in short *few* flowered axillary racemes. Fruit 9-12 cm long. compressed: seeds 20-30. ovoid. compressed.

Properties : Plant is tonic.diuretic. purgative and febrifuge Leaves are aphrodisiac, antiperiodic, alexiteric and stomachic. Hoot decoctions and infusions are used as an abortifacient and purgative (Wesley *Wong* 1976).

Uses : Leaves are used against cough. asthma, sore throat and biliousness. Leaves and seeds are used externally in skin diseases. Seed decoction is given for palpitation, colds and congestive heart failure (VVesley Wong. *1976). Root* is useful in the treatment of ringworm, elephantiasis and scorpion sting. According to Mooss (1977) this plant is not commonly used in Kerala for Ayurvedic

oreparations The Sanskrit name 'Kasamardah' is used for *C. occidentalis* by some authors But as C *occidentalis* is not truly indigenous to India it cannot be the 'Kasamardah' of the ancient sanskrit works *Cassia sophora* is the actual 'kasarnardah'

Cassia tora Linn.

Mal : Thakara, Ponnamthakara

San : Chakramarda

Distribution : Southern moist mixed deciduous and Moist teak bearing forests. Also seen in forest plantations.

Soil requirements . Sandy loam, slightly acidic soils with good drainage.

Description : An undershrub. Leaves pinnate; leaflets 3 pairs. obovate-obtuse. The terminal pair larger than the other pairs. Flowers yellow, in short axillary racemes. Fruits linear, 12-18 *cm* long; seeds 25-30. rhombohedral.

Properties . Leaves and seeds are refrigerant, anthelmintic, antipyretic. laxative and diuretic. Fruit and seeds are astringent and alexiteric.

Uses : Crushed leaves are applied for the sting of bees (Van Reede, 1679). Leaves and seeds are used to treat skin disease. They are used against biliousness, bronchitis. asthma. leprosy and tumours.

Cynometra iripa Kostel

Syn. C. *mimosoides* sensu Gamble

Mal : Irippa

Distribution : Occasional in the West coast tropical evergreen forests in South Kerala.

Soil requirements : Strongly acidic loamy soils with good moisture retentivity and high organic carbon.

Description . A medium sized tree; bark srnootn, brownish grey. Leaves pinnate; leaflets 2 pairs; oblanceolate. falcate, acute, unequal sided. 7.5-12 *x* 3.5-4.5cm Flowers white, in racemes in the axils oi fallen leaves. Fruit turgid, very rugose. 1-2 5 cm long.

Properties : Root is cathartic and purgative.

Uses : Oil from seeds and lotion prepared from the leaves are applied externally in leprosy, scabies and other cutaneous diseases.

Humboldtia vahliana Wight

Mal : Attu-vanchi, kara-pongu

Distribution : Mostly seen along the banks of streams and rivers in West coast tropical evergreen and West coast semieveryreen forests.

Soil requirements: Low lying areas where the soils are clayey. strongly acidic to slightly acidic

Description: A middle sized tree; bark dark brown, mottled with white. Leaves pinnate: leaflets 3-4 pairs, ovate. lanceolate. acuminate, 12-22 x 4-7 cm; stipules prominent with a basal reniform appendage. Flowers white, in axillary pubescent racemes. Fruit flattened, acute at both ends, yellowish brown. pubescent.

Uses: Bark is used in the treatment of biliousness, leprosy, ulcers and epilepsy.

Kingiodendron pinnatum (Roxb. ex DC.)..Harms

Syn. *Hardwickia pinnata* Roxb ex DC.

Mal : Kiyavu, Kutavu

Distribution : West coast tropical evergreen and West coast secondary evergreen Dipterocarp forests.

Soil requirements: Variety of soils with permanent moisture.

Description : A large evergreen tree; bark pale brown, mottled with green. Leaves pinnate; leaflets 4-7 pairs, ovate-lanceolate. shining. Flowers white. in panicled racemes. Fruit obovate. 1-seeded.

Uses : Oleoresin is used in the treatment of gonorrhoea.

Moullva spicata (Dalz.) Nicholson

Syn. ***Wagatea spicata*** Dalz.

Distribution : West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Description : Large straggling shrub with scattered prickles. Leaves bipinnate. pinnae 4.6 pairs; leaflets 6-7 pairs. oblong, obtuse or subacute, 2.5-4 x 1-2 cm. Flowers red, in dense spicate racemes. Fruit linear-oblong. constrictad between the seeds; seeds **3-4.**

Uses : Bark is used against skin diseases. Root is prescribed in cases of pneumonia.

Piliostigma malabaricum (Roxb.) Benth.

Syn. *Bauhinia malabarica* Roxb.

Mal : Arampulli

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Loamy sand, slightly acidic-soils with. good drainage. loose.medium in potash and low in phosphate.

Description : A small to medium sized tree; bark brown, rough. Leaves bilobed, orbicular, palmately veined. 3.5-12 x 4-15 cm. Flowers creamy white, in axillary racemes. Fruits some what turgid, **25-30** x 2-2.5 cm; seeds 10-20.

Uses : Infusion of new flowers is given in dysentery.

Saraca asoca (Roxb.) de Wilde

Syn. S. *indica* auct. non Lnin.

Mal : Asokam

San : Gathasoka

Distribution : Occasional in the West coast tropical evergreen forests. Often grown in homesteads.

Soil requirements : Variety of soils with good drainage.

Description : A small tree, bark surface brown, 2-3 mm thick, blaze pinkish. Leaves pinnate: leaflets 4-6 Pairs. Flowers orange-red in dense racemes. Fruit oblong-compressed, 10-18 x 2-5 cm; seeds 4-8. (Plate IX Fig. *2)*

Properties : Bark is astringent, alexiteric, anthelmintic, demulcent and emollient. It is good for Compliexion.

Uses : The bark is a uterine tonic and it is used extensively in dysmenon hoea. ernnorrhagia, leucorrhoea and various forms of menstrual disorders (Mooss, 1978). It cures inflammation of the cervical glands. thirst, burning sensation. intestinal worms. animal poisoning and haemorrhages. The dried flowers are used against diabetes. They are also used in the treatment of bleeding piles and scabies in children (Narayana Aiyar & Kalammal, 1960).

Mimosaceae

Abarema bigemina (Linn.) Kosterm.

Syn. ***Pithecellobium bigeminum*** auct. non (Linn.) Mart. ex Benth.

Mal : Kalppakku, Kattu-konna

Distribution : West coast tropical evergreen and West coast semievergreen forests,

Description : A small; tree; bark brown. smooth. Leaves bipinnate, pinnae 1-2 pairs; leaflets 2-4 pairs, elliptic-lanceolate or ovate-oblong. acuminate, 7-15 x 2.5-3.5 cm. Flowers small, creamy white, in few flowered heads arranged in short panicles. Fruits flat, curved in a ring, reddish brown outside, red inside; seeds 5-8. black.

Uses: Decoction of leaves is used as an external application in leprosy and as a stimulant for the growth of hair.

Acacia caesia (Linn.) Willd.

Syn. A. ***intsia*** Wight & Arn.

Mal : Incha

San : Nikunjika

Distribution : West coast semievergreen, Moist teak bearing. Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Loamy sand, slightly acidic soils with good drainage, low in potash and phosphate and high in organic carbon.

Description : A climbing shrub with prickles on the stem and leaf rachis. Leaves bipinnate, pinnae 6 pairs;. leaflets 10-20 pairs, oblong? falcate, very small. Flowers white or yetlowish, in globose heads arranged in panicles. Fruit strap shaped, flat, thin; seeds 6-1 2.

Uses : Flowers are used in the treatment of deranged menstrual courses.

Acacia rugata (Lamk.) Merr.

Mal : Cheevakka

San : Charmasahua

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Sandy slightly acidic soils, loose. low in potash and phosphate.

Description : A prickly. climbing shrub. Leaves bipinnate. pinnae 4-6 pairs; leaflets 10-20 pairs. about 1 cm long, linear. Flowers yellowish-white, in gtobose heads. fruits reddish brown, fleshy, constricted between the seeds . Seeds 6-10. (Plate IX, Fig. 3)

Properties : Leaf is cathartic. Pods *are* aperient, expectorant and emetic.

Uses: Plant extract is used to treat scalp affections. cutaneous affections and to improve growth of hair. Leaf is used to. treat biliousness.

Albizia amara (Roxh.) Boiv.

Mal : Varachi

Distribution : Southern moist mixed deciduous forests.

Description : A -medium sized deciduous tree; bark smooth. greenish.young shoots densely pubescent. Leaves bipinnate, pinnae 6-15 pairs; leaflets 15-25 pairs. linear, small. Flowers yellow, in 12.20 flowered heads, axillary, solitary or in clusters of 2-4. Fruit flat. thin, 10-17 x 1.5-3 cm; seeds 6-8. orbicular.

Properties : Seeds are astringent.

Uses : Leaves are recommended in cases of ophthalmia. Flowers ace

externally applied to inflammation, boils and ulcers. Seeds are used against piles. diarrhoea and gonorrhoea. Oil from seeds is used in the treatment white leprosy.

Albizia chinensis (Osb.) Merr.

Syn. *A. marginata* (Lamk.) Merr.
A. stipulata Boiv.
Mal : Pottavaka, Pulivaka
San : Sirisa

Distribution : Moist teak bearing md Southern moist mixed deciduous forests.

Soil requirements : Loamy sand slightly acidic soils, loose. medium in potash. low in phosphate and high in organic carbon.

Description : A large deciduous tree; bark dark grey with short vertical wrinkles and horizontal furrows. Leaves bipinnate. pinnae 8-15 pairs; leaflets 20-40 pairs, linear-oblong, falcate, very small, stipules large, unequally cordate. Flowers yetlowish white, in small panicled heads.Fruits pale brown, 12-7.x **1.5-3**cm; seeds 8-12. ovate, darkbrown.

bark, leaves. flowers and fruits are useful in poison caused by insect bites. Infusion of bark is used as a otion for cuts, scabies and skin diseases. It cures oedema, erysepelas and allied diseases. A. lebbeck **is** used as Sirisah in North India, while A. ***chinensis*** is commonly used in Kerala (MOOSS 1978).

Albizia lebbeck (Linn.) Benth.

Mal : Vaka. Nenmenivaka

. ***Distribution*** : Occasional in the Moist teak bearing and Southern moist mixed deciduous forests.

Soil *requirements* : Loamy soils. slightly acidic, high in potash and organic carbon and low in phosphate.

Description : A large deciduous tree; bark browish grey, rough with short irregular cracks. Leaves bipinnate; pinnae **2-3** pairs, with ent glands in between them; leaflets 5-9 pairs broadly oblong, 2.5-3.5 x 1.5-2 cm. Flowers white in globose umbellate heads. Fruit flattend. thin; seeds 6-12, ellipsoid-oblong.

Properties : Flowers are aphrodisiac. emollient and maturant. Bark and seeds are astringent, tonic, restorative and alexiteric.

Uses : Leaves are used against night blindness. Flowers are given For asthma. Bark and seeds are used in the treatment of piles, diarrhoea. bronchitis. leprosy. paralysis, gum inflammation and helminthic infections (Sathyavathi, 1976). Root is prescribed for ophthalmia and hemicrania.

Albizia odoratissima (Linn. f.) Benth.

Mal : Kunnivaka. Nellivaka,

Distribution : Southern moist mixed deciduous, Southern **dry** mixed deciduous and West coast semievergreen forests.

soil requirements : Sandy clay loam Soils. medium acidic, high in potash and organic carbon and medium in phosphate.

Description : A large deciduous tree: bark rough with irregular cracks. Leaves bipinnate; pinnae 3-8 pairs; leaflets 10-20, oblong .falcate. 2-3 cm long Flowers white,. in 10-12 flowered heads, in terminal, panicles Fruits oblong, brown 10-18 cm long:

seeds 8-12, broadly ovate, yellow.

Uses : Bark is applied externally in leprosy and inveterate ulcers. Leaves are used as a remedy for cough.

Albizia procera (Roxb.) Benth.

Mal : Jelavaka. Vellavaka

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Flourishes in sandy loam, slightly acidic soil with good drainage. high in potasn and organic carbon and low in phosphate.

Description : A large deciduous tree: bark smooth, yellowish white. Leaves bipinnate. pinnae 3-5 pairs: leaflets 5-10 pairs, obliquely ovate, broad and rounded at the base, 2.5-3.5 x 1.5-2 cm. Flowers greenish yellow. in 12-20 flowered heads arranged in terminal panicles.

Properties : Leaves have insecticidal property and they are applied to ulcers as a poultice.

Entada pursaetha DC.

Syn. *E. scandens* auct. non Benth.

Mal : Malamanchadi. Paranta

Distribution : *West* coast semi-evergreen and West coast tropical evergreen forests.

Soil requirements : Sandy clay loam soils. strongly acidic. high in potash and organic carbon and low in phosphate.

Description : A very large woody climber: stem angled, often spirally twisted. Leaves bipinnate, pinnae I pair: leaflets 2-5 pairs. oblong, obtuse *or* emarginate, 3.5-7 x 2-3 cm. Flowers yellow, in simple or panicled spikes. Fruit woody, 30-90 cm long. jointed between the seeds; seeds 6..15. orbicular or orbicular-oblong. dark brown. shining. (Plate IX, Fig. 4)

Properties : Stem, bark and seeds are ooisonous. Seeds are considered *to* be tonic. emetic. antiperiodic and anthelmintic.

Uses : Juice of wood and bark is used for external application for ulcers. Seeds are applied locally for inflammatory glandular swellings. Powdered kernel is commonly taken by native women after delivery, for allaying the body pains and warding off cold

Mimosa pudica Linn.

Mal : Thottavadi

Sari ' Lajjalu

Distribution : Frequent in forest plantations.

Soil *requirements* : Variety of soils; favours loamy sand. medium acidic soils with low potash and phosphate contents.

Description : A smalll prickly diffuse herb. Leaves bipinnate, pinnae 1-2 pairs; leaflets 12-20 pairs, small, very sensitive. Flowers pink. in axillary globose heads. Fruit covered with stiff bristles; seeds 3-5.

Properties : Root is cooling, vulnerary and alexipharmic.

Uses . A paste or leaves is applied to glandular swellings. ?he juice of leaves **is** used in dressing for sinus and also as an application for *sores* and piies. Roots are used against biliousness, lcprosy. dysentery, vaginal anti uterine complaints. inflammation, burning sensation. fatigue. asthma. leucoderma. piles. jaundice and ulcers. A decoction *of* the root **is** considered to be useful in gravellish and other urinary complaints,

Xylia xylocarpa (Roxb.) Taub.

Mal : Irul

Distribution: Moist teak bearing, Southern moist mixed deciduous and West coast semievergreen forests. Occasional in the West coast secondary evergreen forests.

Soil requirements : Variety of soils; grows well on deep well drained loamy soils.

Description : A large deciduous tree, bark reddish-grey. Leaves bipinnate; pinnae 1-pair; leaflets 4-12. oblong, acute or accuuminate, rachis with glands. Flowers yellowish. in dense globose heads Fruit woody, falcate-oblong, dark brown, 10-17 x 2.5-5 cm;seeds 6-10 oblong-ellipsoid, compressed.

Properties . Decoction of bark is anthelmintic.

Uses: Bark is 'used *to* treat leprosy, vomiting, diarrhoea. gonorrhoea and ulcers. The oil from the seeds is given in rheumatism, piles and leprosy.

Rosaceae

Rubus rugosus Sm

Syn. *R. moluccanus* auct. non Linn.

Distribution Southern montane wet scrub jungles

Soil requirements . Loamy soils with high content of gravel, medium acidic. well drainea. low in potash and phosphate and high in organic carbon.

Description . A straggling shrub with scattered prickles. Leaves simple. ovate, cordate at base, looea, prominently rugose on both surfaces, white tomentose beneath, 7-15 cm long. Flowers white. in terminal and axillary panicles, shorter than the leaves. Fruit globose, fleshy, red.

Properties : Leaves are astringent, emmenagogue and aborrifacient.

Uses : Fruit is considered to *be* an useful remedy for the nocturnal micturition of children.

Crassuiaceae

Kalanchoe schwinfurthii Penzig

Syn. *K. laciniata* auct. non (Linn.) Pers.

Distribution : Southern dry mixed deciduous forests.

Description · A large succulent herb, often pubescent. Leaves very variable, the lower deeply segmented. segments usually narrowly oblong. acute. serrate, the middie stern leaves deeply pinnatifid. the upper entire ***or*** nearly so. Flowers yellow, in paniculate cymes.

Properties : Leaf juice is styptic. Succulent leaves allay irritation and promote cicatrization.

Uses : Leaf is used to treat bilious diarrhoea and lithiasis.

Droseraceae

Drosera peltata Sm.

Mal : Thankabhasmachedi

Distribution : Southern montane wet grasslands.

Soil requirements : Sandy loam soils, medium acidic. low in potasn. phosphate and organic carbon.

Description : A small herb with buibous root stock. Leaves cauline. peltate, giandular hairy. Flowers white, in ierminal racemes.

Uses : Plant is used in the preparation of gold bhasma which used as antisyphilitic, aiterarive ana

tonic. Crushed leaves are used as a blistering agent.

Rhizophoraceae

Carallia brachiata (Lour.) Merr.

Syn. C. *integerrima* DC.

C. lucida Roxb.

Mal : Vallabham, Varangu

Distribution : West coast semi-evergreen and *Myristica* swamp forests.

Soil requirements : Rich deep alluvial loamy soils with undecomposed organic debris.

Description : A medium sized to large tree with horizontal branches; bark dark grey, smooth, sometimes corky. Leaves simple, opposite, elliptic to obovate. obtuse. thickly coriaceous. 5-10 x 2.5-5 cm. Flowers sessile, in small heads in axillary trichotomous cymes. fruit small. globose.

Uses : Bark is recommended for itch. Fruits are used in the treatment of ulcers.

Combretaceae

Anogeissus latifolia (Roxb. ex DC.) **Wall.** ex Guill, & Perr.

Mal : Mazhukkanjiram, Vellanjarna

San : Dhava

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and Moist teak bearing forests.

Soil requirements : Loamy sand, slightly acidic soils, **loose** with good drainage, medium in potash and low in phosphate.

Description : A large deciduous tree with drooping branchlets; bark smooth, greyish-brown. flaking off in thin rounded scales. Leaves simple opposite or subopposite. elliptic to suborbicular, obtuse, 5-10 **x** 3-5 cm. Flowers small, yellowish, in globular heads. Fruit compressed, nearly orbicular, narrowly winged. arranged In dense heads.

Properties : Bark is bitter and astringent. Fruit also is astringent. Root is pungent, acrid, stomachic and increases biliousness.

Uses : Bark is used to treat anaemia. urinary discharges. piles. skin diseases and erysepelas. Leai juice is given in purulent discharges from the ear. Fruit is used against biliousness.

Calycopterisfloribunda (Roxb.) Poir.

Mal : Pullani

San: Sushami

Distribution : Southern moist mixed deciduous. Moist teak bearing and Laterite thorn forests.

Description : A large straggling shrub; bark pale brown, very thin. Leaves simple, opposite, ovate-lanceolate to elliptic-oblong, softly pubescent, 7-10 **x 3-5** cm. Flowers yellowish-green, in terminal panicles. Fruit narrowly ovoid, about 1.8 cm long, crowned by the persistent calyx.

Properties : Leaves are astringent, anthelrnintic and laxative.

Uses : Leaves are administered as a cure for dysentery and malaria and applied externally for ulcers.

Terminalial bellirica (Gaertn.) Roxb.

: Thanni

San : Vibheethaka

Distribution : West coast semi-evergreen, West coast tropical ever-

green. Moist teak bearing and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils; favours strongly acidic soils with medium potash. low phosphate and high organic carbon contents.

Description : A large buttressed tree; bark greyish brown with shallow longitudinal fissures. Leaves simple, alternate, tong petioled, crowded towards the tip of branchlets, ovate, elliptic, acute at base, 10-17 x 7-15 cm. Flowers yellow. small. in axillary slender spikes. Fruit ovoid, 1.2-2.5 cm in diameter, minutely pubescent, obscurely angled when dried. (Plate XII. Fig. 1)

Properties : Fruit is one of the 'Tribhala'. It is bitter. astringent, tonic, laxative and antipyretic. Kernel is narcotic.

Uses : The water in which the crushed bark has been boiled is used for removing the allergy caused by species of *Semecarpus* and *Holigarna* (Narayana Aiyar & Kolammal, 1963). Fruit is used in the treatment of diseases of fiver and heart, bronchitis. diabetes, asthma, piles, dropsy. diarrhoea. leprosy, biliousness, dyspepsia and beadache. Oil from the seed is apptied for the growth of hair. fruit with other medicines will cure hoarseness of voice.

Terminalia chebula (Gaertn.) Retz.

Mal : Kadukka

San ; Hareethaki

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Slightly loam soils. well drained having good amount of humus.

Description : A medium sized to large tree; bark dark brown. often with shallow vertical fissures. Leaves simple, subopposite. ovate-elliptic or oblong-ovate. acuminate, 6-15 x 3.5-7 cm, petiole with 2 glands at the top. Flowers yellow, in terminal spikes, often panicled, Fruit usually obovoid, greenish-yellow, obscurely 5-ribbed.

Properties : Bark is diuretic. and cardiotonic. Fruit is one of the 'Tribhala'. It regulates the function of liver, maintains youthful vigour and promotes retentive power. It is astringent, laxative, carminative and expectorant.

Uses : Fruit is used in local application to chronic ulcers and as a gargle in stomatitis. It is used to treat asthma, eye diseases, diseases of heart and bladder. leucoderma, piles, anaemia. elephantiasis and bleeding ulcerations of the gums.

Terminalia crenulata Heyne ex Roth

Mal : Kari-maruthu, Thempavu

San : Chayakarna

Distribution : Southern moist mixed deciduous, Moist teak bearing. West coast semievergreen and Southern mixed deciduous forests.

Soil requirements : Silty loam, slightly acidic soils high in potash. low in phosphate and medium in organic carbon.

Description : A large tree; bark greyish black with deep vertical fissures and transverse cracks, flaking off in irregular thick flakes. Leaves simple, opposite or subopposite. elliptic-oblong, acute, 15-30 x 3.5-7 cm. with a pair of stalked glands on the lower surface on either side of

the midrib. Flowers small, yellowish, in axillary and terminal panicles. Fruit 5-winged.

Properties : Decoction of bark is astringent, diuretic and cardiotonic.

Uses : Decoction of bark is taken against diarrhoea and applied locally to ulcers.

Terminalia paniculata Roth

Mal : Maruthu, Pullamaruthu

Distribution : West coast semi-evergreen, Moist teak bearing, Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Sandy loam, strongly acidic soils. medium in potash. high in phosphate and organic carbon.

Description : A medium sized to large deciduous tree: bark dark brown becoming rough in old trees. Leaves simple, subopposite, elliptic or elliptic-oblong, acute or acuminate at apex, rounded at base, 7-15 x 4-6 cm, glands present on the lower surface near the base. Flowers small, yellowish, in slender spikes forming compound panicles. Fruit 3-winged. one larger than the other two.

Properties : Bnrk is diuretic and cardiotonic.

Uses : Juice of the fresh flowers is used as a remedy in cholera and opium poisoning.

Myrtaceae

Rhodomyrtus tomentosa (Ait.) Hassk.

Mal : Koratta

Distribution : Southern montane wet scrub, Southern montane wet temperate forests.

Description : A large shrub; bark reddish brown. peeling off in thin long flakes Leaves simple, opposite. elliptic or obovate, mucronate, basally 3-5 ribbed. 3-6 x 3-3 5 cm Flowers white solitary or in axillary cymes Fruit purple, crowned by the persistent calyx

Uses The fruit is used in Malaya as a medicine against diarrhoea

Syzygium cumini (Linn) Skeels

Syn, *S.jambolanum* DC.

Mal . Njara, Njaval, Perinjara

San . Mahajambu

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Loamy sand, slightly acidic soils with impeded drainage. low in potash, phosphate and organic carbon.

Description : A large evergreen tree; bark grey or greyish brown. Leaves simple. subopposite, elliptic, lanceolate. lateral nerves unites to form intramarginal nerves, 5-12 x 3-6 cm. Flowers white, slightly fragrant, in panicled cymes. Fruit purplish black. fleshy, oblong or globose, 1.5-2 cm in diameter

Properties · Bark is astringent and anthelmintic. Juice of ripe fruit is stomachic. carminative and diuretic. It strengthens gums and teeth.

Uses : Bark is used in the treatment of diabetes. diarrhoea, dysentery, sore throat, bronchitis, asthma and biliousness. Juice of leaves also is given fur dysentery. Fruit is an useful astringent in bilious diarrhoea and a gaod lotion for ring worm on the head. Seeds are used against diabetes.

Syzygium caryophyllatum(Linn.)Alston

Syn. *Eugenia caryophyllaea* Wight

Mal : Njara

San : Kshudrajdmbu. Hrsvajambu

Distribution : West coast semi-evergreen forests. mostly seen along the banks of streams.

Soil requirements : Medium acidic soils with high moisture retentivity.

Description : A small tree; bark greysmooth. Leaves simple. opposite, obovate, obtuse or emarginate. lateral nerves unites *to* form intramarginal nerves, 3-5 x 2-4 cm. Flowers white, in corymbose cymes. Fruit glose. black. fleshy.

Properties . Tender leaves improve appetite, roots and leaves purify blood.

Uses : Bark is used as a remedy in diarrhoea. impure blood and phlegm. Leaves are applied to ulcers in the genital organs. Decoction of leaves is used in acidity. Root is given to stop vomiting and root bark is beneficial in anemia.

Syzygium hemisphericum (Walp.) Alston

Syn. *Jambosa hermispherica* Walp.

Distribution : West coast tropical evergreen forests.

Soil reqirements : Loamy soils. loose, slightly acidic. medium in potash, low in phosphate and high in organic carbon.

Description . A large evergreen tree. Leaves simple. opposite. elliptic or ovate-lanceolate. acuminate, 10-16 x 5-8 cm. lateral nerves unite at the margin to form intramarginal nerves. Flowers creamy white, in axillary and terminal panicled cymes. Fruit hemispherical, purple, crowned by the persistent calyx lobes.

Uses : Decoction of bark is used to treat biliousness and syphilis.

Lecythidaceae

Barringtonia acutangula (Linn.)Gaertn.

Mal : Attupazhu, Nirpezhu

San : Samudraphala, Vidula

Distribution : Southern moist mixed deciduous and West coast semievergreen forests, mostly seen along the banks of streams and rivers.

Soil requirements : Clayey soils with impeded drainage. strongly acidic. medium in potash and high in phosphate.

Description : A small to medium sized tree; bark dark brown, rough. Leaves simple. crowded at the tip of hranchlets, oblanceolate, crenate-serrate, 6-15 x 2.5-7.5 cm. Flowers pink. in large terminal penndulous racemes. Fruit bluntly 4-angled.

Properties : Leaves and roots are used as tonic. Fruit is astringent. vulnerary, alexipharmic. galactagogue and antheimintic. Seed is emetic and expectorant. Root is cooling, aperient and emetic, and pcssess properties similar to cinchona (Ahmed, 1969).

Uses : Leaf juice is given in diarrhoea. Fruit is used in the treatment of biliousness, diseases of the blood, bronchitis, sore eye. headache. hallucinations, gleet and syphiiis. Powdered seed is used as a snuff in headache.

Careya arborea Roxb.

Mal : Pezhu

San : Kadabhee

Distribution : Southern moist mixed deciduous, Moist teak bearing and Laterite thorn forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, high in potash and organic carbon and low in phosphate.

Description : Small to medium sized tree; bark dark grey, flaking off in thin narrow strips. Leaves simple, clustered at the end of branchleta, obovate or oblong, obtuse or shortly acuminate, crenate. 12-30 x 7-15 cm; leafbase usually decurrent on the petiole. Flowers yellowish white, in terminal spikes. Berry globose, 5-7 cm in diameter, crowned by the persistent calyx lobes and style.

Properties : Bark is antipyretic and antipruritic in eruptive fevers. Bark, flowers and fruits are astringent and demulcent.

Melastomaceae

Melastoma malabathricum Linn.

Mal : Kadali, Kalampetti

Distribution : West coast tropical evergreen, West coast semievergreen and Southern montane wet scrub forests.

Soil requirements : Clayey soils with impeded drainage, strongly acidic with low potash and phosphate contents.

Description : A large shrub. young parts densely covered with brown scales. Leaves simple. opposite, elliptic. or elliptic-lanceolate, 3-5 ribbed, 5-10 x 1.5-3.5 cm. Flowers purple, in few flowered terminal corymbose panicles.

Uses : A decoction of bark is prescribed as a gargle in catarrhal pharyngitis and aphthae and as lotion for scabies and ulcers. Leaves are used in the treatment of diarrhoea and dysentery, Leaves and flowers are given as astringent in leucorrhoea and chronic diarrhoea in Indo-china.

Memecylon angustifolium Wight

Mal : Attukanila

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requiremerits : Loamy sand. slightly acidic soils with good drainage.

Description,: A large shrub to a small tree. Leaves simple. opposite, linear-larrceolate. obtuse at apex. secondary nerves not prominent. up to 7x1.2 cm. Flowers small, purplish blue. in subumbellate cymes. Berry globose, black purple, about 0.5 cm in diameter.

Properties : Bark is used as a tonic and refrigerant.

Memecylon umbellatum Burm. f.

M. ***edule*** Roxb.

Mal · Kaasavu, Kayampu

Distribution : Occasional in the West coast semievergreen forests. Mostly grown in villages.

Description : A large shrub to a small tree; bark thin, light brown. Leavessimple, opposite. ovate-lanceolate, lateral nerves obscure. Flow ers small. blue, in axillary or extra axillary cymes. Fruit black. purple. 0.6 cm in diameter.

Properties : Leaves are cooling and astringent.

Uses : Leavesare given internally in leucorrnoea and gonorrhoea. It is used as a lotion in conjuctivities. A

decoction of the root is useful in excessive menstrual discharges.

Osbeckia parvifolia Arn.

Syn. *O. cupularis* D. Don ex Wight & Arn.

Mal : Cherukadali

Distribution : Southern montane wet scrub and Southern montane wet grassla-ids.

Soil requirements : Marshy aieas; favours sandy loam soils, medium acidic. low in potash and phosphate and high in organic carbon.

Description : A small herb. Leaves simple, opposite ovate or elliptic-ovate, acute, 3-ribbed. up to 4 x 2 cm. Flowers white or pink in capitate heads. Fruit ovate-oblong, obscurely ribbed.

Uses : Whole plant is pounded and applied to swellings.

Lythraceae

Lagerstroemia rcginae Roxb.

Syn. *L speciosa* (Linn.) Pers.

L. flos-rginae Retz.

Mal : Chemmaru . Manimaruthu

Distribution Mostly seen along the river banks in west coast semi-evergreen. Moist teak bearing and *Myristica* swamp forests.

Soil requirements : Sandy loam soils *with* impeded drainage, slightly acidic. low in potash and phosphate and high in organic carbon.

Description . A medium to large deciduous tree. often buttressed; bark. smooth, greyish-yellow *or* pale brown, peels off in thin irregular strips. Leaves simple, cpposite or sub-opposite, ovate. lanceolate, rounded at base, about 15x8 cm. Flowers pink, in showy terminal panicles

Properties : Bark and leaves are purgative. Seeds are narcotic Root is astringent, stimulant and febrifuge.

Uses : Fruit is used as a local application for apthae of the mouth.

Onagraceae

Ludwigia octovalvis (Jacq.) Raven ssp. **sessiliflora** (Michj. Raven

Syn. *Jussiaea suffruticosa* Linn.

Mal : Kattukarayampu

San : Bhulavanga

Distribution : in ail forest types, seen along the sides of streams.

Description : An erect hairy undershrub. Leaves simple. alternate. lanceolare, acure, 5-7 x 1.5 cm. Flowers yellow. solitary axillary Fruit 2.5-4 cm long, 8-ribbed. pubescent, seeds numerous minute.

Properties : A decoction of the plant is vermifuge and purgative. Root is antipyretic.

Uses : Plant is considered useful in the treatment of dysentery

Passifloraceae

Adenia hondala (Gaertn.) de Wilde

Syn. *A. palmata* Engl.

Mal: Muthakku, Karimuthakku

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Silty clay loam with poor drainage. strongly acidic with high potash phosphate and organic carbon.

Description : A large tendril bearing climber with tuberous roots; stem thickened at the modes. Leaves simple alrernarc, palmately 3-5lobed rarely undivided. glandular in

sinuses. Flowers greenish yellow, in axillary cymes. Fruit a capsule. about 5 cm long; seeds many.

Properties : Tubers are galactagogue; improve memory and strength.

Uses: Juice of leaves and roots is used externally for skin diseases. Flowers are used against biliousness. Tubers are used as a remedy in rheumatism. biliousness, burning sensation, tuberculosis and sterility.

Passiflora foetida Linn.

Mal : Chadayan. Poochappazham

Distribution . Sean in forest plantations.

Description : A slender tendril bearing climbing herb. Leaves alternate, simple, lobed. basally 3-5 nerved. Flowers white. axillary. solitary. Fruit a berry, orange-yellow, about 1.5 cm in diameter. surrounded by the persistent pectinate calyx.

Properties : Leaf is an emmenagogue. Fruit is emetic.

Cucurbitaceae

Diplocyclos palmatus (Linn.)C. Jeffrey

Syn. *Bryonopsis laciniosa* non (Linn.) Nand.

Mal : Neyunni. Sivavalli

Distribution . Seen in forest plantations and also in the open areas in forests.

Description : A slender scaberulous tendril bearing climbing herb with a thick root stock. Leaves simple. deeply palmately lobed. Flowers small in axillary fascicles. Fruit a berry, red with white vertical lines, about 1.2 cm in diameter.

Properties : Plant is bitter, aperient. It is also used as a tonic.

Uses: Plant Is used in the treatment of bitious attack and fevers with flatulence. Pounded leaves are applied to inflammation.

Mukia maderaspatana (Linn.) Roem.

Syn. *Melothria maderaspatana* (Linn.) Cogn.

Mal : Mukkalpeerarn

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests. Also seen in forest plantations.

Description : A scabrous tendril bearing climbing herb. Leavessimple. alternate, variable in shape. entire or 5-angled, 2.5-10x 2.5-8 cm. Flowers small, yellow, in axillary fascicles. Fruit a berry, red when ripe.

Properties : Tender shoots and leaves are aperient. A decoction of seeds is sudorific.

Uses : Tender shoots and leavas are used against vertigo and biliousness. Decoction of seeds is applied *to* aching body, especially on strained backs. A decoction of the root is used in the treatment of flatulence and toothache.

Solena heterophylla Lour.

Syn. *Melothria heterophylla* Cogn.

Mal : Njerinjampuli

San : Amlavethasa

Distribution . Southern moist mixed deciduous. Moist teak bearing and Southern dry mixed deciduous forests.

Description : A slender rendril bearing climbing herb with perenniai root stock. Leaves simple, very variable, cordate, ovate or 3-5 lobed Flowers yellow, in axillary

Fruit ribbed, oblong, red, often striped with yellow, up to 6 cm long.

Properties: Seeds are purgative.

Uses: Leaf juice is applied to inflammation caused by marking nut. Root juice is used as a remedy for spermatorrhoea.

Trichosanthes tricuspidata Lour.

Syn. T. ***palmata*** Roxb.

Mal : Kakkathonti. Valiyakattuvellari

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description: A large woody climber with tendrils. Leaves simple. deeply palmalely lobed, very variable. Male flowers white, in racemes with large conspicuous bracts. Female Flowers solitary, white. Fruit a large, globose berry, red. orange-streaked.

Properties : Fruit is cathartic, hydragogue. carminative. purgative and abortifacient. The seeds are emetic and purgative.

Uses : Fruit is used against ophthalmia, leprosy. asthma. hemicrania and rheumatism.

Trichosanthes cucumerina Linn.

Mal : Kaippan-padavalam, Kattupadavalam

San: Padola

Distribution : Occasional in Southern moist mixed deciduous and Southern dry mixed deciduous forests. Mostly seen in scrub jungles.

Description : 4 slender tendril bearing herb. Leaves deeply and usually acutely lobed, denticulate. 5-12 cm long. about as broad as long. Maie flowers in 8-15 flowered **axillary** racemes. Female flowers axillary, solitary. Fruit ovoid, fusiform, scarlet or orange when ripe, up to 7 cm long.

Properties : Plant is a general and cardiac tonic, alterative, antipyretic and febrifuge. A decoction of leaf and stem is an emrnenagogue. Leaf juice is emetic and root juice is cathartic.Fruit is bitter and laxative. Seeds are antifebrile. anthelmintic and stomachic.

Uses : Plant is used against intestinal worms. A decoction of stem and leaves is given for bilious disorders and skin diseases.

Zanonia indica Linn.

Distribution : Southern moist mixed deciduous and West coast semievergreenforests in North Kerala.

Description : A stout climbing shrub with tendrils. Leaves simple, alternate. ovate-cordate, acute at apex. 12-18 x 7.5-9 cm. Flowers dioecious. very small. in pendulous racemes. Fruit elongate-cylindric. clavate. truncate at apex, about 10 cm long.

Properties : Plant is a febrifuge. Fruit is acrid. aperient, and cathartic.

Uses : Leaves are used to reduce inflammation. antispasmodic afflictions and nervous irritation caused by boils. Fruit is beneficial in asthma and cough.

Datiscaceae

Tetrameles nudiflora R. Br.

Mal : Cheeni

Distribution : West coast semievergreen, West coast tropical evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils, favours loamy soils with good drainage, slightly acidic and medium in organic carbon.

Description : A large deciduous buttressed tree; bark greyish white with transverse wrinkles and lenticels. Leaves simple, crowded at the tip of branchlets, broadly ovate, acuminate. cordate at base. serrate, **7.5-**15 cm in each way. Flowers small. yellowish-green, mate in panicles. female in pendulous racemes. Fruit an urceolate capsule crowned by the persistent calyx. about O 6 cm long.

Properties : Bark is laxative and diuretic.

Uses : Decoction of bark is used against rheumatism. odema and ascites.

Cactaceae

Opuntia dillenii (Ker-Gawler) Haworth

Mal : Chattuka Kalli. Nagamulla

Distribution : Southern dry mixed deciduous forests and Scrub jungles.

Soil ***requirements*** : Clay loam soils, slightly acidic, medium in potash and organic carbon and high in phosphate.

Description : A shrub with jointed, flatened, fleshy stem, with clusters of sharp spines. Leaves absent, Flowers yellow, large.

Properties 1 Latex of the plant is purgative. Fruit is refrigerant.

Uses : Leaf juice is applied to the eyes in cases of ophthalmia. It hastens the 'suppuration of boils. Fruit is used against whooping cough.

Aizoaceae

Mollugo pentaphylla Linn.

Syn. M. ***stricta*** Linn.

Mal : Parpadakappullu

Distribution : Southern dry mixed deciduous forests and Scrub jungles.

Soil requirements : Variety of soils: favours slightly acidic soils with low organic carbon.

Description : A small, erect, slender herb with quadrangular branches. Leaves simple, whorld at the nodes, 1-2.5 cm long. Flowers small, white, in terminal coryrnbose cymes.

Properties : Plant is stomachic, aperient and antiseptic. Infusion of the plant is emmenagogue. Leaves are bitter and antiperiodic

Umbelliferae

Centella asiatica (Linn.) Urban

Syn. H***ydrocotyle asiattca*** Linn.

Mal : Kudakan. Kudangal. Muthil

San : Mandookaparni

Distribution : Seen along the sides of water courses in forest plantations.

Soil ***requirements*** : Sandy loam soils, medium acidic, low in potash and phosphate and high in organic carbon.

Description : A prostrate herb. rooting at the nodes. Leaves simple. orbicular-cordate, crenate. up to 5 cm in diameter. long petioled. Flowers small, reddish in axillary few flowered umbels.

Properties : Plant is a general tonic. Continuous usa improves physical strength, digestive power, com-

plexion. voice, intellectual faculties and memory power.

Uses : The juice of the leaves may be taken as a tonic. It is used against diseases of the skin. nerves and blood and epilepsy. Leaves are used as a poultice and have marked stimulating and healing action. An ointment prepared from the leaves is used in case of elephantiasis, enlargement of scortum and affactions *of* the cellular tissue.

Hydrocotyle javanica Thumb.

Distribution : West coast tropical evergreen and Southern hilltop tropical evergreen forests.

Soil requirements : Variety of soils. loose and slightly acidic.

Description : A prostrate herb. rooting at the nodes. Leaves simple, orbicular cordate. 7-9 lobed, 2.5-8 cm in diameter, long petioled. Flowers white, small, in compound umbels.

Properties : Plant is a cooling tonic, alterative arid diuretic. It is reported to be insecticidal.

Uses : Leaves are used as a blood purifier. They are also used against nervousness, indigestion and dysentery.

Hydrocotyle sibthorpioides Lamk.

Syn. *H. rotundifolia* Roxb. ex DC.

Distribution : Southern montane wet temperate forests and Southern montane wet scrub jungles.

Soil ***requirements*** : Loose. clay loamy, strongly acidic soils.

Description : A small prostrate herb. rooting at the nodes. Leaves simple, orbicular-cordate, 7-lobed, 0.2-1.2 cm in diameter. Flowers small, white, in slender umbels.

Properties : Plant juice is emetic, vermifuge and diuretic.

Uses: Plant is used against rheumatism, pulmonary and digestive troubles, and skin diseases. In Assam the leaves are applied to boils for suppuration. In China the leaves are chewed in case of liver complaints.

Pimpinella heyneana Wall.

Distribution : In grasslands and West coast tropical evergreen forests above 800 m elevation.

Soil requirements : Loamv sand. medium acidic. soils along the slopes, low in potash and phosphate and high in organic carbon.

Description : An erect annual herb. Leaves 3-foliolate; leaflets ovate. serrate. sometimes lateral leaflets deeply divided. Flowers small, white. in compound umbels. Fruit glabrous. ovoid. didymous.

Properties : Root is febsifuge.

Alangiaceae,

Alangium salvifolium (Linn. *f.)* Wang

Mal : Ankolam, Azhinjil, Irinjil

San : Ankola

Distribution : Southern moist mixed deciduous, Southern dry mixed decidious and Laterite thorn forests.

Soil requirements : Loamy and, medium acidic soils with low potash and phosphate contents.

Description : A small deciduous. *often* spinescent tree: bark yellowish grey. Leaves simple, alternate. elliptic-lanceolate: basally 3-5 ribbed.

5-15 x 1.5-5 cm. Flowers white, in axillary fascicles. Fruit a globose purplish red berry; 1-seeded.

Properties : Fruit is cooling and nutritive. Root is laxative and anthelmintic.

Uses : Leaves are used as a poultice in rheumatic pains. Root bark is recommended for fever and skin diseases.

Rubiaceae

Anthocephalus chinensis (Lamk.) Rich. ex Walp.

Syn. ***A.*** *indicus* **A.** Rich.

A. cadamba Miy.

Mal : Attuvanchi. Atruthekku. Kadampu

San : Kulsithanga

Distribution : West coast semi-evergreen forests, rnostiy seen along the banks of streams.

Soil requirements ; Clayey soils with impeded drainage, medium acidic, medium in potash and low in phosphate.

Description : A large deciduous tree with spreading horizonral branches: bark brownish grey with shallow vertical fissures. Leaves simple, opposite, ovate-oblong. up to 30 cm long and 12 cm broad. pubescent below. Flowers small. yellow, in showy globose heads.

Properties : Bark is tonic, febrifuge, astringent, aphrodisiac. galactagogue, vulnerary and alexiteric. The new sprouts of the plants are stomachic and aphrodisiac.

Uses : Bark Is used *to* treat uterine complaints and biliousness. The sprouts are used against leprosy and dysentery. Decoction of leaves is used as a gargle in cases of aphthae and stomatitis.

Borresia articularis (Linn. f.) F. N Will.

Syn. *B. hispida* **K.** Schum.

Mal . Tharuthaval

Distribution : Southern dry mixed deciduous forests and Scrub jungles.

Soil *requirements* : Sandy loam soils with good drainage. slightly acidic, low in organic carbon.

Description : A small herb. Leaves simple, opposite. subsessile. oblong or elliptic, scabrid, 1-2.5 **x** 0.8-2 cm; stipules with long bristles. Flowers pink, in axillary clusters. Seeds brown, finely granulate, **0.3-** 0.4 cm long. (Plate X. Fig. 1)

Properties : Seeds are stimulant. Decoction of the root is alterative.

Canthium dicocum (Gaertn.) Teys. & Binn.

Syn. *C. didymum* Gaertn.

Mal Irumparappi

Distribution : Southern moist mixed deciduous, and Southern dry mixed deciduous forests.

Soil requirements : Variety of **soils;** favours loamy soils, loose, slightly acidic.

Description : A small evergreen tree; bark smooth. dark grey. Leaves simple, opposite, ovate, acuminate. 4-11 x 2-5 cm. Flowers white. in axillary corymbs. Fruit a globose drupe, black, about 0.8 cm long.

Uses , Bark is recommended tor fever.

Catunaregam spinosa (Thumb.) Tirv· engadum

Syn. *Xeromphis spinosa* (Thumb.)

Randia dumetorum Lamk.

Mal : Kara, Malankara

San : Madana

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils; favours loamy soils with good drainage and slightly acidic.

Description : A large shrub with axillary spines. Leaves simple, opposite, obovate, obtuse or acute, about 2.5 cm long; stipules ovate-acuminate. Flowers creamy yellow, solitary or 2-3 at the ends of short lateral branchlets. Fruit globose or ovoid, yellow, 2.5-4 cm long; seeds many, embedded in gelatinous pulp.

Properties : Bark is astringent. Pulp of the fruit is anthelmintic, abortifacient, aphrodisiac, carminative, alexiteric and antipyretic. Fruit is antispasmodic and sedative.

Uses : Bark is externally applied as an anodyne in rheumatism. Leaves are used against pulmonary infections. Pulp of the fruit is applied to the tongue and palate for incidental ailments of children during teething. It is also used to treat ulcers, leprosy and skin diseases.

Ceriscoides turgida (Roxb.) Tirvengadum

Syn. *Gardenia turgida* Roxb.

G. montana Roxb.

Mal : Malankara

Distribution : Southern dry mixed deciduous and Laterite thorn forests,

Soil requirements : Variety of soils. It is a characteristic tree of poor dry sandy areas, dry rocky hill sides, laterite and stiff clay soils.

Description : A small deciduous tree with numerous thick stout, sometimes leafbearing thorns; bark bluish grey, smooth. Leaves simple, opposite, oblong or semiorbicular, obtuse, pubescent below. 7.5-10 x 2.5-5 cm. Flowers yellowish, axillary, solitary or in clusters. Fruit a berry, 5-7.5 cm long; seeds many, embeded in pulp.

Uses : A preparation of root is given to children in case of indigestion.

Chassalia ophioxyloides (Wall.) Craib

Syn. C. *curviflora* Thw.

Mal : Vellakurinji

Distribution : West coast tropical evergreen, West coast semievergreen forests.

Soil requirements : Clay loam with impeded drainage, strongly acidic and high in organic carbon.

Description : An undershrub. Leaves simple, opposite, elliptic, oblanceolate or obovate. acute or acuminate.10-15 x 4-7.5 cm. Flowers pinkish white, with an yellow tinge at the mouth of the corolla, in terminal cymes. Fruit a berry, black, about 0.8 cm in diameter.

Uses : Leaves and root are applied externally to wounds and ulcers. A decoction of root is used to treat rheumatism, pneumonia. ear and eye diseases and sore throat.

Geophila repens (Linn.) I. M. Johnston

Syn. G. *reniformis* D. Don

Distribution : West coast semievergreen forests.

Description : A small prostrate herb, rooting at the nodes. Leaves orbicular. deeply cordate, 1-3.5 cm in diameter. Flowers white, terminal,

solitary or in 2-3 flowered umbels. Fruit a berry, globose. red when ripe, crowned by the calyx lobes, 6-8 mm in diameter.

Properties : Root is emetic, diaphoretic and expectorant.

Uses : Root is used in the treatment of amoebic dysentery

Haldina cordifolia (Roxb.) Ridsd.

Syn. *Ao'ina cordifolia* (Roxb.) Hook.f. ex Brandis

Mal : Manjakadambu

San : Dharakadamba

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Soil requirements : Sandy loam soils with good drainage, medium acidic.

Description : A large deciduous tree; bark grey, Leaves simple, opposite, orbicular-cordate, acuminate, pubescent beneath, 10-28 cm in diameter. Flowers yellow, in globose heads.

Properties : Bark is febrifuge, antiseptic, tonic, vulnerary and aphrodisiac. Root is astringent.

Uses: Plant juice is used to kill worms in sores. Bark cures inflammations, biliousness and diseases of the blood and skin.

Hymenodictyon orixense (Roxb.) Mabberley

Syn. *H. excelsum* (Roxb.) Wall.

Mal : Malankalli, Neechankadambu, Perintholi

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils with drainage. It frequent the loamy soils along streams.

Description : A large deciduous tree with thick branchlets; bark greyish brown, thick, soft. Leaves simple, opposite, broadly ovate, acute or acuminate, 12-25 x 10-20 cm. Flowers greenish, in cylindrical racemes forming large pendulous panicles. Fruit a capsule, elliptic, about 2 cm long; seeds winged.

Properties : Inner bark is astringent, antiperiodic and febrifuge.

Uses : Bark increases taste and appetite and cures all kinds of tumours.

Ixora arborea Rox. ex Sm.

Syn. I *parviflora* Vahl

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Loamy sand slightly acidic soils, loose, medium in potash, and low in phosphate.

Description : A small evergreen tree. Leaves simple,opposite, obovate, oblong or elliptic, 7.5-12 x 5-7.5 cm. Flowers pink, in dense cymes arranged in terminal panicles. Fruits globose, black, about 0.6 cm in diameter.

Uses : Fruits and roots are given when the the urine is highly coloured.

Ixora coccinea Linn.

Mal : Chethi, Thechi, Thetti

San ; Paranti

Distribution : Laterite thorn forests and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils, usually in sandy loam.

Description : A shrub. Leaves simple, opposite, oblong, sessile or shortly peduncled corymbiform cymes. Fruit purple, globose.

Properties : Leaves, flowers and roots are astringent, antiseptic, cholagogue and sedative (Mooss, 1978)

Uses : Leaves, flowers and roots are highly beneficial in skin diseases. itch and boils; also effective in erysipelas and burning sensation. Water boiled with the leaves is an effective wash in skin diseases, itch and painful boils. Oil prepared with the flowers is used for external application in itch and skin eruptions. Flower buds are used in the treatment of conjunctivitis and redness of the eyes. The root is said to be effective in dysentery, gonorrhoea, leucorrhoea, hiccough and nausea. An infusion or decoction of the roots is used as a gargle in sore throat. A decoction of the root is effective against a particular variety of leprosy (Mooss, 1978).

Mitragyna parvifolia (Roxb.) Korth.

Syn. *Stephegyne parvifolia* Roxb.

Mal : Neerkadampu, Veempu

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : In the slope; favours slightly acidic soils with low potash and phosphate and high organic carbon.

Description : A large deciduous tree. stem fluted or sometimes buttressed; bark brownish or greenish grey, smooth, flaking off in small scales. Leaves simple, opposite, orbicular, oblong, ovate or obovate. base cuneate to truncate, 5-12 x 2.5-7 cm. Flowers yellowish, in globose heads.

Uses : Bark is applied for muscular pains. Bark and roots are given in cases of fever and colic.

Morinda coreia Buch.-Ham.

Syn. *M. tinctoria* Roxb.

Mal : Manjanathi

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Sandy loam, well drained loose soils.

Description : Small to medium sized tree; bark corky, pale brown, deeply cracked. Leaves simple, opposite, elliptic-lanceolate, acute, 10-15 x 5-7 cm. Flowers white. in globose heads. Fruit a syncarpium, about 2 cm in diameter.

Properties : Leaves and fruits are deobstruent and emmenagogue (Dey, 1973). Root is an astringent.

Uses: Leaves are used in medicines for heart diseases. The tunic 'Arjunaarishta' is prepared with the leaves (Joseph, 1977). Root is used as a cure to boils.

Morinda umbellata Linn.

Mal : Kudalchurukki

Distribution : West coast semievergreen, Southern moist mixed deciduous and ; Southern dry mixed deciduous forests.

Soil requirements : Silty loam, loose soils with good drainage slightly acidic, high in potash, phosphate and organic carbon.

Description : A diffused climbing shrub with milky latex. Leaves simple, opposite, elliptic-lanceolate, membraneous, 8-13 x 2.5-4 cm.

wers small, white, in many branched terminal umbels.

Uses : A decoction of leaves is recommended for diarrhoea and dysentery.

Mussaenda glabrata (Hook.f.) Hutch. ex Gamble

Mal : Vellila

San : Sreeparni

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Variety of soils, favours slightly acidic soils with medium organic carbon.

Description : A climbing shrub with nearly glabrous branchlets. Leaves simple, opposite, broadly ovate, acuminate, 8-13 x 7-9 cm. Flowers yellow, in terminal cymes. One of the sepals enlarged into a white leafy structure

Properties : Flowers are diuretic.

Uses : Flowers are given against asthma, Intermittent fevers and dropsy. Roots are used to treat white leprosy.

Mussaenda laxa (Hook.f.) Hutch. ex Gamble

Syn. *M. frondosa* Linn. var. *laxa* Hook. f.

Mal : Vellila

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Variety of soils; favours slightly acidic soils with good drainage, medium in organic carbon.

Descripton : A climbing shrub, branchlets softly hairy. Leaves simple, opposite, ovate-acuminate, 6-10 x 6 5-8 cm. Flowers orange yellow in terminal lax cymes; one of the sepals enlarged into a white leafy structure.

Properties : Flowers are diuretic. A decoction of root expels phlegm and it is a cooling agent.

Uses : Decoction of stem is used as a remedy for cough. Flowers are given against ague, flatulence,asthma and cough. They are externally applied to clean foul ulcers and to cure skin eruptions. Fruit and leaves are applied in cases of dimness of the eyes. A decoction of root is given against aphthae and white leprosy.

Ophiorrhiza mungos Linn.

Mal : Avilpori

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Loamy, loose, strongly acidic soils, high in organic carbon,

Description : A herbaceous undershrub. Leaves simple, opposite, elliptic or elliptic-lanceolate, acuminate at apex, attenuate at base, 8-13 x 3-6 cm. Flowers white, in subumbellate cymes. Fruit a small obcordate capsule.

Properties : Root is bitter, tonic, anthelmintic and alexipharmic.

Pavetta indica Linn.

Mal : Pavatta

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements Variety of soils, favours medium acidic soils, low in organic carbon.

Description : A large shrub to a small tree: branchlets pale brown,

subquadrangular, thick. Leaves simple, opposite, elliptic or obovate, very variable in shape. Flowers white, in showy terminal corymbose cymes.

Properties : Root is bitter and aperient.

Uses : Leaves are used for fomenting haemorrhoidal pains. Root is prescribed in visceral obstructions and dropsy.

Rubia cordifolia Linn.

Mal : Manchatti

San : Manjishta

Distribution : West coast semi-evergreen and Southern hill-top tropical evergreen forests at elevations above 500 m.

Description: A climbing scabrous herb. Leaves simple, in whorls of 4, ovate-cordate, basally 5-7 ribbed, long petioled. Flowers very small, greenish white, in axillary and terminal cymes. (Plate X, Fig. 2)

Properties ; Root is tonic, alterative, astringent, alexiteric, antidysenteric, antipyretic, analgesic and anthelmintic. It improves the voice and complexion. It is known to have anticancerous activity (Anon, 1980).

Uses : Leaves cure biliousness. Fruit cures diseases of the spleen. Root is used to treat diseases of the uterus, leucoderma, erysipelas, ulcers, urinary discharges, jaundice and piles.

Tarenna asiatica (Linn.) O Ktze. ex Schum.

Syn. *Webera corymbosa* Willd.

Chomelia asiatica 0.Ktze.

Mal : Kattuchethi

Distribution : West coast tropical evergreen forests.

Soil requirements : Loamy, loose, strongly acidic soils.

Description : A large shrub. Leaves simple, opposite, oblong-lanceolate, acute, 7-15 x 2-6 cm, shining stipules triangular-ovate, Flowers white, in terminal corymbose cymes. Fruit a small globose berry.

Uses : Leaves are used to treat skin diseases.

Xeromphis uliginosa (Retz.) DC.

Syn. *Randia uliginosa* (Retz.) DC.

Mal : Kara. Pannikkara, Punamkara.

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic and medium in organic carbon.

Description : A small thorny, deciduous tree; bark reddish brown, scaly; branchlets often terminate in short thorns. Leaves simple. opposite, obovate or oblanceolate, obtuse or sometimes acuminate, pubescent beneath, 5-10 x 2-5 cm. Flowers white, soiitary at the ends of suppressed branches. Fruit ovoid, smooth, crowned by the persistent calyx, 5-6 cm long; seeds numerous, embeded in the pulp.

Properties : Unripe fruit is astringent. Root is diuretic and haematinic.

Uses : Fruits and roots are used as a remedy in dysentery and diarrhoea.

Valerianaceae

Valeriana arnottiana Wight

Distribution : Southern montane wet grasslands.

Soil requirements : Loamy sand, medium acidic soils.

Description : A tall herb with stout rootstock. Leaves 4-8 cm long, unequally pinnate; leaflets 5-9, the lowest pair alternate, the others opposite, all coarsely dentate. Flowers small, white, in terminal panicles. Fruit with pappus hairs. (Plate X. Fig. 4)

Properties : The drug 'Indian Valerian' is extracted from the plant. It is an insect repellant. The drug yields a derivative which is useful as a tranquilizer (Yoganarasimhan, 1978).

Uses : It is prescribed as a remedy for hysteria, hypocondriasis, nervous unrest and emotional troubles (Yoganarasimhan. 1978),

Valeriana beddomei Cl.

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Soil requirements : Loamy sand strongly acidic soils with poor drainage.

Description : A herb with thick roots. Leaves 10-25 cm long, pinnate; leaflets many, narrow, linear. the end one ovate, entire or dentate, glabrous, or softly pubescent. Flowers small, in terminal corymbose cymes. (Plate X, Fig. 3)

Uses : The drug Indian Valerian' is extracted from the roots (Yoganarasimhan. 1978).

Valeriana hookeriana Wight & Arn.

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Soil requirements : Loamy sand. strongly acidic soils, and poorly drained.

Description : A tall pubescent herb. Leaves pinnate; leaflets 7 or more, ovate, usually crenate-dentate. Flowers small, white, in corymbose cymes. Fruit ribbed and hairy.

Uses : The drug 'indian Valerian' is extracted from the roots (Yoganarasimhan. 1978.)

Valeriana leschenaultii DC.

Distribu tion : Southern hill-top tropical evergreen, Southern montane wet scrub and Southern montane wet grasslands.

Description : A large perennial herb. Leaves usually simple, sometime one or two small leaflets below the end one, radical leaves ovate, acute, truncate or cordate at base; long petioled. Flowers small, pink, in terminal corynibose cymes.

Properties : Root is stimulant, carminative and anti-spasmodic.

Uses : Root is used to treat hysteria. epilepsy, cholera and neurosis.

Compositae

Ageratum conyzoides Linn.

Mal : Appa

San : Pishamushti

Distribution : Mostly seen in forest plantations and open areas in moist forests.

Soil requirements : Sandy loam soils, well drained medium acidic, low in potash and phosphate and high in organic carbon.

Description : A softly hairy annual herb. Leaves simple, opposite,

ovate, crenate, 5-7 x 2.5-9 cm. Flowers small, bluish-white, in corymbose heads.

Prcperties : Leaves are styptic and it is said to prevent tetanus. Root juice is antilythic.

Uses : Leaves are applied to cuts and sores. A cold decoction of the root is used as a lotion in purulent ophthalmia. It is used to treat rheumatism also.

Artemisia nilagirica (Cl.) Pamp.

Syn. *A. vulgaris* auct. non Linn.

Mal : Thirunithripacha

Distribution : Southern montane wet scrub forests. Also seen along the sides of road cuttings in forests and plantations above 800 m elevation.

Soil requirements : In the slopes having good drainage, favours loose soil, medium in potash, phosphate and organic carbon.

Description: A shrub, strongly scented. Leaves alternate, lower leaves ovate in outline, deeply pinnatisect, pubescent above and white tomentose beneath; upper most trifid or entire. Flowers small, greenish white, in small heads arranged in panicles.

Properties : Plant is emmenagogue. anthelmintic, antiseptic, stomachic, deobstruent, antispasmodic and alterative. Root has tonic and antiseptic properties.

Uses : Infusion of leaves and flowering twigs is administered in nervous and spasmodic affections, in asthma and diseases of the brain.

BIumea lacera (Burm. f.) DC.

Mal : Venapacha

San : Kukkuradru

Distribution : Southern moist mixed deciduous forests. Also seen in forest plantations.

Soil requirements : Sandy loam soils in theslopes with good drainage, strongly acidic, low in potash and phosphate.

Description : A large glandular pubescent herb with a strong odour of turpentine. Leaves elliptic-oblong or obovate, obtuse or subacute often incised or lyrate, pubescent, 3.5-7 x 2-6 cm. Flowers yellow, arranged in small heads in short axillary cymes and terminal panicles.

Properties : Plant is bitter and antipyretic. Juice of the leaves is anthelmintic, astringent, febrifuge; stimulant and diuretic.

Uses : Root is used in the treatment of Cholera.

Elephantopus scaber Linn.

Mal : Anachuvadi

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Sandy clay loam soils with good drainage, strongly acidic, medium in potash and low in phosphate.

Description : A stiff herb. Leaves simple, radical, obovate- oblong, rounded or subacute, coarsely serrate-dentate, sparsely hairy on both surfaces, base tapering into an obscure petiole, 10-20 x 3.5-6 cm. Flowers violet, in small heads on long peduncle.

Properties : Plant is astringent, cardiac tonic, alterative, febrifuge, antipyretic and alexipharmic. A decoction of leaves and root is emollient. Flowers are aphrodisiac and expectorant.

Uses : Plant is used in the treatment of diseases of blood. A decoction of leaves and roots is used to treat dysuria, diarrhoea, dysentery and swelling or pain in the stomach. Bruised leaves are applied to ulcers and eczema. Flowers cure biliousness and liver troubles. Root is given to arrest vomiting.

Emilia sonchifolia (Linn.) DC

Mal : Muyalchevi

San : Sasasruthi

Distribution : Seen in forest plantations.

Soil requirements : Variety of soils, favours sandy loam, slightly acidic soils with good drainage.

Description : An erect or diffuse slender herb. Leaves simple, very variable, lyrate or obovate. toothed or entire; the cauline more or less amplexicaul and auricled. Flowers purplish, in heads arranged in lax corymbs

Properties : Decoction of plant is a febrifuge.

Uses : Decoction of the plant is given against tympanites and bowel complaints. Leaf juice is used to treat eye inflammation and night-blindness Roots are recommended for diarrhoea. The juice of the plant boiled with equal quantity of coconut oil is applied on the head against tonsiiitis. A paste prepared from the plant is applied over the throat

Notonia grandiflora DC.

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Description : A succulent shrub. Leaves simple, obovate or elliptic-lanceolate, fleshy, 5-10 x 2.5-6 cm. Flowers pale yellow, in heads arranged in corymbs.

Uses : Extract of the fresh stem is used as a preventive in hydrophobia (Chopra *et a/.,* 1956).

Siegesbeckia orientalis Linn.

Distribution : Southern montane wet scrubs.

Soil requirements : Clay loam, strongly acidic soils

Description : A larqe annual pubescent herb. Leaves simple, opposite, ovate acute or acuminate, 5-9 x *2.7-6* cm. Flowers yellow, in heads, the outer involucre with large iviscous glandular hairs.

Properties : Plant is depurative, sialagogue, anthelmintic and cardiotonic.

Uses : Plant is used in the treatment of urethral diseases, skin diseases, ulcers and sores.

Spilanthes calva DC.

Syn *S. acmella* auct non (Linn.) Murr

Mal : kuppamanjal

Distribution : Mostly seen along the water courses in forest plantat. ions and along road cuttings in forests.

Soil requirements : Variety of soils in moist areas.

Description : Annual herb rooting at the nodes. Leaves simple. opposite, ovate, crenate, 2-3 5 x 1-2 cm. Flowers yellow, in axillary and terminal heads. Achenes compound, ciliate on the margins.

Properties : Plant is a powerful mosquito larvicide.

Uses : Flowers are used to relieve toothache. Seeds are chewed

to produce salivation when the mouth is dry.

Taraxacum officinale Weber.

Distribution : Introduced, grows wild in forest plantations at Munnar.

Soil requirements : Clay loam soils at high elevations with imeded drainage slightly acidic, medium in potash, high in phosphate and organic carbon.

Description : A herb with thick root stock and milky latex. Leaves radical, pinnatinsect, margins spinescent Flowers yellow, on long peduncled solitary heads

Properries : Root is diuretic, and aperient. It is also used as a tonic.

Uses : Leaves are used for fomentation. Root is used as a remedy for chronic disorders of kidney and liver.

Tricholepis glaberrima DC.

Distribution : West coast semi-evergreen forests.

Soil requirements : Loamy soils with good drainage, medium acidic and high in organic carbon.

Description : An erect glabrous herb with angular stem. Leaves simple, opposite, linear-oblong, shortly auricled, sessile, 2.5-6 x 0.3-0.6 cm. Flowers purple, in terminal heads.

Properties : Plant is considered as nervine tonic and aphrodisiac.

Uses : Plant is used in the treatment of leucoderma, skin diseases and seminal debility.

Vernonia cinerea (Linn.) Less.

Mal : Poovaankurunthal

San : Sahadevi

Distribution : Southern moist mixed deciduous forests. Also seen in forest plantations.

Soil requirements : Sandy soils, slightly acidic with medium potash and high phosphate contents.

Description : An erect annual herb. Leaves simple, alternate, ovate or lanceolate, the margin undulately toothed, veryvariable in size Flowers pink or lilac in small heads, arranged in panicles.

Properties : Plant is diaphoretic. Seeds are anthelmintic and alexipharmic.

Uses : A decoction of plant is used to promote perspiration in febrile conditions, as a remedy for spasm of the bladder and strangury. Plant juice is given to cure piles. Root recommended for dropsy and flowers are administered for conjuctivities.

Wedelia ehinensis (Osb) Merr.

Syn. *W. calendulacea* Less.

Mal : Manjakruinji

San : Peethabhringaraja

Distribution : Southern moist mixed deciduous forests.

Soil requirements : Variety of soils, favours sandy loam, slightly acidic soils with good drainage and medium organic carbon.

Description : A procumbent perennial herb, stem rooting at the nodes. Leaves simple, opposite. linear-oblong or oblanceolate, subsessile, entire or crenate, 2.5-7 x 1-3 cm. Flowers yellow, in solitary, slender, long peduncled heads.

Properties : A decoction of the plant is used as deobstruent. Leaves are alterative and are used as a tonic.

Uses : Decoction of the plant is given in uterine haemorrhage and menorrhagia. Leaves are used to treat cough, cephalalgia and skin diseases.

Lobeliaceae

Lobelia leschenaultiana (Presl.) Scotsb.

Syn. *L. excelsa* Lesch.

Mal : Kattupukayila

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Soil requirements : Clay loam strongly acidic soils with impeded drainage, low in potash and phosphate and high in organic carbon.

Description : A large, usually biennial herb, stem hollow. Leaves simple, crowded, linear-oblong, serrate, softy hairy, thick. Flowers pale yellow, tinged with purple, in dense terminal spike.

Properties : Latex of the plant is extremely acrid.

Uses : Leaves are smoked in the same way as tobacco.

Lobelia nicotianaefolia Roth ex Roem. & Schult.

Mal : Kattupukayila

Dirtributton : Frequently seen in forest clearings at altitudes above 800 m in all forest types.

Soil requirements : Variety of soils with good drainage.

Description : A large perennial herb with hollow stem. Leaves simple, crowded, linear-oblong, margin toothed, nearly glabrous. Flowers white, tinged with lilac, in large terminal racemes.

Poperties: Leaves are stomachic and diuretic. An infusion of leaves is antispasmodic.

Uses : Leaves are used to cure biliousness and diseases of blood, heart and uterus.

Ericaceae

Gaultheria fragrantissima Wall.

Distribution : Southern montane wet scrub and Southern montane wet temperate forests.

Soil requirements : Clay loam soils strongly acidic, low in potash and phosphate and high in organic carbon.

Description : A shrub. Leaves simple, alternate, oblong, acute, crenate, coriaceous, 7-12 x 3-6 cm. Flowers white or yellowish, in axillary. racemes. (Plate XI, Fig. 1)

Properties : Oil from leaves is aromatic, stimulant, carminative and antiseptic.

Uses: Oil from leaves is used as a flavouring agent especially for dentifrices. It is used to treat rheumatism and neuralgia.

Rhododendron arboreum Sm.

Syn. *R. nilagiricum* Zenk.

Mal : Kattupoovarasu

Distributicn : Southern montane wet temperate forests.

Soil requirements : Clay loam soils with impeded drainage, favours strongly acidic, low in potash and phosphate and high in organic carbon.

Description : A small tree, bark reddish-brown, about 2 cm thick, peels off in small flakes. Leaves simple, crowded at the tips of branchlets, elliptic-oblong, coriaceous, glabrous above, densely pubescent below, 7-12 x 4-6 cm. Flowers dark crimson, in showly terminal fascicles.

Uses : Young leaves are crushed and applied to forehead for headache. Flowers are used in the treatment of dysentery (Santapau & Henry,1973).

Plumbaginaceae

Plumbago zeylanica Linn.

Mal : Veluthakoduveli

San : Swethachithraka

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam, slightly acidic soils well drained, low in organic carbon.

Description : A perennial under-shrub. Leaves simple, alternate; ovate, subacute, 3-7.5 x 2-3.5 cm, petiole amplexicaul at base and dialated into stipule like auricles, Flowers white, in elongated spikes; calyx glandular pubescent,

Properties : Said to possess properties similar to those *Plumbago indica,* but appears to be milder in action. Plumbagin, isolated from the plant is found to exhibit anti-cancer, antibacterial and antifungal activities (Krishnaswamy and Purushothaman 1980).

Uses : This is commonly used for Citrakah by the physicians of North India. In Kerala, however, *P. zeylanica* is sparingly used, and that too only as a substitute for *P. indica,* whenever that is not available (Mooss, 1978).

Myrsinaceae

Ardisia solanacea Roxb.

Distribution : West coast semi-evergreen and West coast tropical evergreen forests, above 500 m elevation.

Soil reqiiirements : Clay loam soils, poorly drained. strongly acidic and high in organic carbon.

Description : A large shrub to a small tree, bark brown, smooth Leaves simple, alternate, crowded at the tips of branchlets, obovate or oblanceolate, acute or acuminate. attenuate at base, 8-20 x 4-6 cm. Flowers pink, in axillary and extra axillary umbellate racemes on about 5 cm long peduncles. Fruit a berry, black, about 0.7 cm in diameter. '(Plate XI. Fig 3).

Properties : Plant is credited with carminative and stimulant properties Root is a febrifuge

Uses : Roots are used to treat diarrhoea and rheumatism .

Embelia ribes Burm. f.

Mal : Vizhal

San : Krimighna

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Description : A large scandent shrub; bark dark brown, lenticellate. Leaves simple, alternate, elliptic or elliptic-oblong, acute, 5-7.5 x *2-3.5* cm. Flowers very small, white, in tarminal panicled racemes. Fruit globose, 0.3-0.4 cm in diameter, black when ripe. (Plate XI, Fig 2)

Properties : Dried fruit is stomachic, anthelmintic, astringent. alterative and tonic. Fruits have anti-fertility activity (Arora, *et al.,* 1971). Aquous extract of the fruit show antibacterial activity against *Staphylococcus auretus* and *Escherichia coli.*

Uses : Fruits are used against fevers, bronchitis, and diseases of chest and skin. Infusion of roots is

given in cases *of* cough and diarrhoea.

In Kerala for 'Krmighna' the fruits of *Embelia tsjeriam-cottam* are used.

Embelia tsjeriam-cottam (Roem. *&* Schult.) DC.

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils. favours loamy, slightly acidic soils.

Description : A large shrub to a small tree; bark brown, horizontally cracked. Leaves simple, alternate, elliptic-obovate, entire or sometimes slightly dentate. 5-11 x 2.5-5 cm Flowers small, greenish. white, in axillary and extra-axillary racemes. Fruit black. globose, 0.3-0.4 cm in diameter.

Properties : Fruit is antispasmodic. carminative and anthelmintic.

Uses : Fruit is used to treat piles. Dried bark of the root is used against toothache.

Maesa indica (Roxb.) DC.

Syn. *M. perrottetiana* DC.

Mal : Kireethi

Distribution : Southern montane wet scrub forests. Also frequently seen in forest clearings above 500 m elevations.

Soil requirements : Loose clay loam. strongly acidic soils.

Description : A shrub to a small tree. Leaves simple, ovate-oblong or elliptic-lanceolate, actue or acuminate, serrate. 7-15 x 3,5-7 cm. Flowers small. white, in axillary racemes. Fruit a small berry, creamy white.

Properties : Fruits are anthelmintic

Uses : Root is recommended for syphilis.

Sapotaceae

Madhuca longifolia, (Koenig) Mc Bride

Syn. *Bassia longifolia* Koenig

Mal : Nattilippa

San : Madhukam

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Variety of soils, prefers sandy soils,

Description : A large tree; bark smooth. dark yellowish grey, exudes a milky exudation when cut. Leaves simple, crowded at the end of branchlets, linear-lanceolate or oblanceolate, 7.5-12 5 x 3.5-5 cm. Flowers white, in axillary fascicles of 2-8. Fruit a berry. ellipsoid, about 4 cm long.

Properties : Bark decoction is used as an astringent and emollient. Flowers are laxative. stimulant and anthelmintic.

Uses : Bark decoction and oil from seeds arc good for skin diseases. Gummy juice is used to treat rheumatism.

Madhuca neriifolia (Moon) Lam

Syn. *Bassia malabarica* Bedd.

: Attilippa, Kattilippa

Distribution : West coast tropical evergreen forests, mostly seen along the river banks.

Soil requirements : Occurs in loamy, poorly drained, slightly acidic soils.

Description : A medium sized tree; bark dark brown. Leaves simple, crowded at the tips of branchlets, linear-oblong or oblanceolate, acute or obtuse, 7.5-25x 2.5-6 cm. Flowers yellowish white, in clusters of 4-10, axillary or from the scars of fallen leaves. Fruit ellipsoid, about 2.5 cm long.

Properties : Flowers are cooling and nutritive.

Uses: Flowers are used in the treatment of kidney complaints. Fruits are recommended in cases of rheumatism, biliousness, consumption asthma and worm trouble. Oil from seeds is used to treat rheumatism and for improved growth of hair.

Manilkara hexandra (Roxb.) Hubard
Syn. *Mimusops hexandra* oxb.
Mal : Pazhamunpala

Distribution : Dry evergreen forests.

Soil requirements ; Variety of soils from pure sand to clayey loam, best growth is obtained in deep sandy loam and on soils overlying limestone.

Description ; A small tree; bark blackish grey with conical protuberances, exudes a milky latex when cut Leaves simple, alternate, elliptic-obovate, emarginate, 5-10 x 4-5 cm. Flowers pale yellow, axillary, solitary or in fascicles of 2-6. Berry reddish yellow, ellipsoid. 1.3 cm long.

Properties : Bark is astringent, demulcent, emollient and alterative. Fruit is an aphrodisiac. Bark and fruit have tonic properties.

Uses : Leaf extract is given against vaginal discharges. Fruit is used against biliousness, consumption, hallucination and leprosy.

Mimusops elengi Linn.
Mal : Ilanji
San ; Bakula

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : In the slope; favours sandy loam, poorly drained, medium acidic soil with low potash and phosphate and high organic carbon.

Description : A large evergreen tree; bark dark grey with shallow vertical fissures. Leaves simple, alternate, elliptic-oblong, shortly acuminate, very glossy, 5-10 x 3-5 cm. Flowers white, fragrant, in axillary clusters of 2-6. Berry ovoid, yellow, about 2.5 cm long. ((Plate XI, Fig. 4)

Properties : Bark is astringent, alexipharmic, and anthelmintic. cooling and diuretic. It is not easily digestible. The flowers and fruits are astringent and sweet (Mooss. 1978).

Uses : A decoction of the bark forms a good gargle in odontalgia, inflamrnation of the alvioli as also in excess salivation (Mooss, 1978). Pulp of the ripe fruit is used against dysente y.

Ebenaceae

Diospyros candolleana Wight
l : Karimaram

Distribution : West coast tropical evergreen forests.

Soil requirements : Variety of soils from pure denuded soils on hill slopes to deep soils in moist valleys; good growth is obtained in loamy soils with dominant clay fractions.

Descriprion : A medium sized tree; bark smooth greenish-black. Leaves simple, alternate, elliptic-oblong, shortly acuminate; the lateral nerves inconspicuous, 7-17 x 3.5-7 cm. Flowers pale yellow, male in dense fascicles; female 1-5, in sessle axillary or extra axillary clusters. Fruit ovoid, pointed, 2 cm long, green.

Uses : Decoction of the root bark is given in rheumatism and swellings

Diospyros montana Roxb.

Mal : Malayakathi

Distribution : West coast semi-evergreen forests.

soil requirements : Variety of soils, loam medium acidic, high in organic carbon.

Description : A small to medium sized tree; bark thin, grey or greyish black. Leaves simple, alternate, ovate or elliptic, obtuse or subacute at apex, pubescent when young, 2.5-7 x 1-2.5 cm. Flowers white; male in axillary cymes; female solitary. Fruit globose, apiculate, 2-3.5 cm in diameter, reddish yellow.

Poperties: Fruit is poisonous

Uses : Fruit is applied externaliy to boils.

Diospyros paniculata Dalz.

Mal : Karivella

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Slightly acidic sandy loam soils with good drainage.

Description : A medium sized tree; bark black, rough. Leaves simple, alternate, oblong or oblong-lanceolate, obtusely acuminate. 7.5-18 X 2.5-5 cm. Flowers greenish white; male in few flowered axillary pedunculate cymes with conspicuous bracts; female solitary. Fruit ovoid, 2.5-4 cm long, green, densely tomentose.

Uses : Powdered bark is used in the treatment of rheumatism and ulcers. Powdered fruits are applied to burns. Decoction of the fruit is given in gonorrhoea to purify blood and in biliousness.

Diospyros peregrina (Gaertn.) Gurke.

Syn. *D. embryopteris* Pers.

Mal : Panachi

San : Athimukthaka. Virala

Distribution : Seen along the river banks and sides of back waters. Commonly found in clayey soils.

Description : A medium sized evergreen tree; bark dark grey, smooth. Leaves simple, alternate, oblong, obtuse or subacute at apex, 12-20 x 5-7.5 cm. Flowers pale yellow; male in axillary cymes; female solitary. Fruit globose, 3.5-7 cm in diameter, yellowish red.

Properties : Bark and fruits are astringent. Unripe fruit is acrid, bitter and oleaginous.

Uses : Infusion of fruits is used as gargle in aphthae and sore throat. Fruit juice is used as an application for wounds and ulcers. Oil of The seeds is given in diarrhoea dysentery.

Diospyros toposia Ham.

Distribution : West coast tropical evergreen forests in South Kerala.

Soil requirements : Loamy soils with good drainage, medium acidic, high in organic carbon.

Description : A large evergreen tree; bark thick. black or dark greyish brown. Leaves simple, alternate, ovate or ovate-lanceolate, rounded at both ends, 10-20 X 3.5-7.5 cm. Flawers pale yellow; male in axillary few flowered pedunculate cymes; female solitary. Fruit ovoid, 2.5-5 cm in diameter, green scurfy pubescent.

Uses : Gum exuded from the freshly cut trees is used as a remedy far toothache.

Symplocaceae

Symplocos cochinchinensis (Lour.) S. Moore ssp. **laurina** (Retz.) Nooteb.

Syn. *S. spicata* Roxb.

Mal : Pachotti

San : Lodhra

Distribution : West coast tropical evergreen forests.

Soil requirements : Variety of soils with good drainage.

Description : A small tree; bark light grey, thin. Leaves simple, alternate, ovate-lanceolate, narrowed at the base, obtuse or shortly acuminate, irregularly toothed or entire, glabrous and shining, 7.5-14 **x** 2.5-5 cm. Ftowers small, white, in compound axillary spikes. Fruit globose, faintly ribbed, 0.5 cm in diameter. (Plate XII, Fig. 2)

Properties : Bark is cooling, astringent and alexiteric. The flowers are pungent, acrid, cooling and astringent.

Uses : Bark is used against menorrhagia, bowel complaints, eye diseases and ulcers. A decoction of the bark is used as a gargle for giving firmness to spongy and bleeding gums.

Oleaceae

Jasminum angustifolium Vahl

Mal : Kattumallika

San : Vanamallika, Asphota

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen for ests.

Soil requirements : Variety of soils with good drainage.

Description : Climbing shrub. Leaves simple, opposite, ovate, acute, rounded at base, 2-3 5 x 1-2 cm. Flowers white, tinged with purple in 1-3 flowered cymes. corolla lobes lanceolate. acuminate, slightly fragrant.

Properties : Root is bitter.

Uses : Root is applied externally in cases of ringworm.

Jasminum bignoniaceum Wall. ex DC.

Syn. *J. humile* Linn.

Mal : Manjakurumozhi

San : Hemapushpika

Distribution : Southern montane wet scrub and Southern montane wet temperate forests.

Soil requirements : Clay loam soils with impeded drainage. strongly acidic, high in organic carbon

Description : An erect shrub with angular branches. Leaves alternate, imparipinnate; leaflets small, 5-15, ovate, acute, cuspidate. Flowers yellow, rather large, in short few flocymes, opposite to the leaves. Fruit black, globosa.

Properties : Flowers are astringent. They act as a tonic to the heart and bowels.

Uses : Milky juice of the plant is used far removing the unhealthy lining walls of chronic sinuses and fistulas.

Jasminum ritchiei Cl.

Distribution : West coast tropical evergreen forests.

Soil requirements : Variety of soils;favours slightly acidic soils with high organic carbon content.

Description : A much branched climbing shrub Leaves simple, opposite. elliptic, acuminate, cuneate at base, 3.5-10 x 2-4 5 cm, glabrous above and hairy on the nerves below. Flowers white, in 3-9 flowered cymes, corolla lobes linear, acute.

Uses : Leaves are used against toothache Flowers are used in the treatment of piles.

Jasminum rottlerianum Wall. ex DC.

Mal : Vellakattumulla

Distribution : West coast tropical evergreen forests.

Description : A scandent fulvous hairy shrub. Leaves simple, opposite, elliptic, acute or acuminate, base usually rounded, 4-10 x 2.5-4 cm, pubescent below. Flowers white. in terminal dense cymes.

Uses : Leaves are recommended in case of eczema.

Myxopyrum smilacifolium Bl.

Syn : *M. serratulum* A. W. Hill

Mal : Chathuravalli. Chathuramulla

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Description : A large climbing shrub with angular branches. Leaves opposite. lanceolate. acuminate, serrulate, 12-20 cm long. Flowers small, yellowish. in trichotomous panicles. (Plate XII, Fig. 3)

Uses : Leaves are used as a remedy in asthma, cough, rheumatism and nervous complaints.

Olea dioica Roxb.

Mal : Edana, Vidana

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Sandy medium acidic soils, with low potash, phosphate and organic carbon contents.

Description : A small to medium sized tree; bark brown, rough. Leaves simple, opposite, elliptic or ovate-lanceolate. tapering at the base, remotely toothed or entire, 10-20 x 5-10 cm. Flowers dioecious, small, white, in divaricate axillary panicles. Fruit an ovoid drupe, about 1 cm long.

Properties : Bark is a febrifuge.

Olea glandulifera Wall.

Distribution : Southern montane wet temperate forests.

Soil requirements : Loamy sand, medium acidic soils, low in potash and phosphate and high in organic carbon.

Description : A small to medium sized tree; bark grey. Leaves simple, opposite, rhomboid lanceolate,elliptic or ovate, acuminate. cuneate at base, up *to* 10 x 5 cm. glandular in the nerve axils. Flowers white, corolla deeply lobed, in axillary and terminal panicles. Fruit a drupe, ovoid.

Properties: Bark and leaves are astringent and antiperiodic.

Apocynaceae

Alstonia scholaris (Linn.) R. Br.

Mal : Ezhilampala, Pala

San : Sapthachada

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils with good drainage.

Description : A medium sized to large tree; bark greyish brown, rough, lenticellate; exudes a milky latex when cut. Leaves simple, in whorls of 5-10, obovate or elliptic-oblong, obtuse or sometimes acute, 10-20 x 3.5-6 cm. Flowers greenish white, in terminal capitate cymes. Fruits cylindric, pendulous, 25-60 cm long and 3 mm in diameter.

Properties : Bark acts as a bitter tonic, alterative and febrifuge in malaria.

Uses: Bark is used in the treatment of diarrhoea, dysentery, liver complaints, skin diseases and rheumatic pains. Milky juice is applied to ulcers.

Alstonia venenata R. Br.

Mal : Theeppala

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forest at elevations about 500 m.

Description : A large shrub; bark light brown, thin. Leaves simple, in whorls of 3-6, oblong-lanceolate, acuminate, cuneate at base, 10-20 x 2-4 cm. Flowers white, in subumbellate, pedunculate cymes. Fruit falcately curved, tapering at both ends, 7-12 x 1 cm.

Properties : Ripe fruit acts as a tonic, antiperiodic and anthelmintic.

Uses: Ripe fruit is used in the treatment of syphilis, insanity and epilepsy.

Anodendron paniculatum (Roxb.) DC.

Distributon : Southern moist mixed deciduous and West coast semievergreen forests.

Description : A very large climbing shrub: bark brown, thick, smooth. Leaves simple, opposite, elliptic or oblong, shortly acuminate, rounded at base, glabrous and shining, 8.5-15 x 3.5-6.5 cm. Flowers small, yellow. in large terminal and axillary paniculate cymes. Fruit terete, narrowed from the base, 10-15 cm long.

Properties : Root is emetic and expectorant.

Uses : Root is prescribed in case of amoebic dysentery.

Carissa spinarum Linn.

Mal : Cherumulchedi, Mulli

Distribution : Southern dry mixed deciduous forests and Scrub jungles.

Soil requirements : Loamy sand slightly acidic soils, well drained, usually along the slopes, low in potash and phosphate and medium in organic carbon.

Description : A suberect or prostrate spinescent shrub, spines very sharp, often bifurcated. Leaves simple, opposite, elliptic, acute or obtuse, mucronate, acute at base 2.5-4 x 1-2 cm. Flowers white, sometimes tinged with pink, in few flowered corymbose cymes, usually terminal. Fruit a berry, subglobose. 0.6 cm in diameter, dark purple.

Properties : Fruit is stomachic, antiscorbutic, refrigerant and digestive.

Uses : Root is used for making purgatives. Ground root is applied in worm-infested sores of animals. The root roughly ground and mixed with water drives away snakes by its smell. It is said that snakes avoid any plot or ground surrounded by a hedge of this plant.

Chonemorpha fragrans (Moon) Alston

Syn. C. *macrophylla* G. Don

Mal : Appuppanthadi

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Description : A large climbing shrub with milky latex. Leaves simple, opposite, suborbicular 12-30 cm in either way. Flowers large, white, fragrant. in erect racemose cymes. Fruit a pair follicle, about 25 cm long; seeds many with silvery white hairs at the apex.

Properties : Stem and roots are Yaxative and antibilious.

Uses : Stem and roots are prescribed in cases of rheumatism, impure blood, chest diseases, leprosy, itches and fever.

Holarrhena pubescens (Buch. - Ham.) Wall. ex DC.

Syn. *H. antidysenterica* (Roth) Wall. ex DC.

H. codaga G. Don

Wrightia antidysenterica Grah.

Mal : Kudakappala

San: Kudaja

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Sandy soils with good drainage.

Description : A small tree with milky latex; bark greyish brown, smooth. Leaves simple, opposite, ovate-oblong or elliptic, acute or acuminate. 8-15 x 5-8 cm. Flowers creamy white, in termninal corymbose cymes. Fruits narrow, long pendulous follicles, seeds many, linear-oblong, about 1 cm long, tipped with brown hairs. (Plate XIII, Fig. 1)

Properties : The bark is pungent, astringent, cooling and digestive stimulant. The seeds are acrid, bitter, hot in action. easily digestible and digestive stimulant (Mooss, 1978).

Uses : Bark is used against piles, diarrhoea. haemorrhages, indigestion and skin diseases. A decoction of the seeds with little honey is very beneficial in diarrhoea and dysentery. This is useful against bleeding piles also (Mooss, 1978).

Ichnocarpus frutescens (Linn) R. Br.

Mal : Palvalli

San : Syamalata

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Sandy clay loam soils with good drainage, slightly acidic, medium in potash and organic carbon and low in phosphate.

Description : An extensively branched climbing shrub with slender rusty villous branches. Leaves simple, opposite, elliptic or lanceolate 4-7 x 2-3.5 cm. Flowers small, white, in terminal and axillary paniculate cymes. (Plate XIII, Fig. 2)

Properties : Root acts as an alterative and tonic. It is said that root has properties similar to *Hemidesmus indicus* It is diuretic and diaphoretic.

Uses : Leaves are recommended in case of fever. Roots are used in the treatment of skin eruptions

Rauvolfia serpentina (Linn.) Benth. ex Kurz

Mal : Amalpori, Sarpagandhi

San : Sarpagandha

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils, favours clay to clay loam, strongly acidic soils with plenty of humus, low in phosphate and medium in potash contents.

Description : An undershrub. Leaves simple, in whorls of three, lanceolate. acute or acuminate, 7-17 x 2.5-3.5 cm. Flowers in many flowered corymbose cymes; corolla white, tinged with violet; calyx and pedicels bright red, especially in fruit. (Plate XII. Fig. 4)

Properties : The air dried roots possess several alkaloids, the most important being reserpine which has a depressant action on the central nervous system and produces sedation and lowering of blood pressure.

Uses : Root is used as a remedy in painful afflictions of the bowel. A decoction of roots is given to increase uterine contraction, is administered in case of mild anxiety and chronic phychosis for its tranquilizing action.

Tabernaemontana heyneana Wall. ex A DC.

Syn. *Ervatamia heyneana* (Walt. ex A. DC.) T. Cooke

Mal : Kundalappala, Kunnanpala.

Distribution : West coast semi-evergreen and Moist deciduous forests.

Soil requirements : Sandy clay loam soils with good drainage, slightly acidic with medium potash and low phosphate contents.

Description : A small deciduous tree; bark grey, exudes a milky latex when cut. Leaves simple, opposite, elliptic-oblong or lanceolate, shortly acuminate, 7-18 x 4-7.5 cm. Flowers white, in many flowered pedunculate cymes. Fruit a pair of curved, boat-shaped, orange coloured follicles; seeds sorrounded by red pulp.

Uses : Milky juice is used to treat eye diseases. Root is used as local anodyne.

Vallaris solanacea (Roth) O. Ktze.

Mal : Vishappala

Distribution : Southern dry mixed deciduous forests.

Description : A large woody climbing shrub; bark greyish white, smooth, exudes a milky latex when cut. Leaves simple, opposite, elliptic-lanceolate or oblong-lanceolate, acuminate, glands often present in the axils of lateral veins, 5-10 x 2.5-3.5 cm. Flowers creamy white, fragrant. in axillary cymes.

Uses : Milky juice is applied to wounds and ulcers (Kirtikar & Basu, 1935; Chopra *et al.,* 1956).

Wrightia tinctoria (Roxb.) R. Br.

Mal : Nilappala. Thontappala

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests.

Soil requirements : In the slopes in sandy loam soils, slightly acidic, low in potash and phosphate and medium in organic carbon.

Description : A small deciduous tree; smooth, yellowish grey, exudes a milky latex when cut. Leaves simple, opposite, elliptic-oblong, acuminate or caudate, 7.5-15 x 2 5-6 cm. Flowers white, in terminal cymes. Fruit of two distinct pendulous follicles, cohering at the tip; seeds 1-2 cm long, with a tuft *of* deciduous hairs at the tips.

Properties : Bark is tonic. Seeds are aphrodisiac. The other medicinal properties are reported to be the same as those of *Holarrhena pubescens*.

Asciepiadaceae

Calotropis gigantea (Linn.) R. Br.

Mal : Erikku

San : Arka

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Sandy loam soils with good drainage; slightly acidic with low potash, high phosphate and medium organic carbon contents.

Description : A large shrub, with milky latex; young parts adpressed wooly tomentose. Leaves simple, opposite, obovate or oblong. acute or acuminate, subsessile, 10-20 x 3.5-10 cm. Flowers purplish or white in lateral umbellate cymes. Fruits oblong, 8-10 cm long; seeds many. with a tuft of hairs at the tip.

Properties : Root is pungent, hot in action, digestive, stimulant and purgative Root bark *is* emetic, diaphoretic and expectorant.

Uses : Tincture of leaves is given in cases of intermittent fevers and leprosy. It is applied to paralysed parts. swellings and wounds. The juice of the young leaves is often recommended to be poured into the ears in case of ear-ache (Mooss, 1977). Powdered flowers are used in colds, coughs, asthma and indigestion. Root bark is given against dysentery, leprosy, secondary syphilis and rheumatism.

Cosmostigma racemosum (Roxb.) Wight

Mal : Vattu valli

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Description : A twining shrub. Leaves simple, opposite, ovate, cordate, acuminate at apex, 7.5-12 x 5-7.5 cm. Flowers small greenish, in axillary or sublateral cymes. Fruit oblong, bluntly pointed, 7-12 cm. long.

Properties : Root bark is cholagogue.

Uses : Leaves are used to cure ulcerous sores. Root bark is useful in dyspepsia accompanied by fever.

Gymnema sylvestre (Retz.) Roem. & Schult.

Mal : Chakkarakolli

San : Meshasringi, Madhunasini

Distribution : Southern moist mixed deciduous forests.

Description : A large climbing shrub with milky latex. Leaves simple, opposite, ovate, elliptic, acute or shortly acuminate. pubescent or subglabrous, 3-5 x 1-3 cm. Flowers yellow. in densely pubescent cymes. (Plate fig. 3)

Properties : The plant is stomachic, stimulant, laxative and diuretic. Root is emetic and expectorant. The leaves of the plant when chewed possess the property of suppressing sweet and bitter tastes for a few hours, however sour, astringent and pungent tastes remains unaffected. Gymnemic acid present in the leaves has been identified as the antisaccharine agent of the leaves (Stocklin. *et al.,* 1967)

Uses : The plant is said to be useful in cough, biliousness and sore eyes.

Hemidesmus indicus (Linn.) R. Br.

Mal : Narunanti, Nannari

San : Sariba

Distribution : Southern dry mixed deciduous, Laterite thorn forests and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils

Description : A slender climbing herb with thickened roots. Leaves simple, opposite, very variable, usually elliptic-lanceolate. Flowers small. yellowish purple, in axillary subsessile cymes. (Plate XIII, Fig. 4)

Properties : Root is demulcent. alterative, diaphoretic, diuretic and tonic.

Uses : Root is recommended for fever, skin diseases, leucorrhoea, syphilis and rheumatism.

Holostemma adakodien Schult.

Syn. *H. annulare* (Roxb.) K. Schum.

Mal : Adakodien, Adapathiyan

San : Jeevanthi

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Description A large glabrous twining shrub with thick roots. Leaves simple, opposite, ovate-oblong, acuminate, deeply cordate, 7-5-12 x 5-7.5 cm. Flowers fairly large, pinkish, in few flowered axillary cymes. Fruit linear-oblong, 10-15 cm long. (Plate XIV, Fig. 1)

Properties : The roots are sweet cooling. revitalising, roborant, good for the voice, not easily digestible, and good for the eyes (Mooss, 1977).

Uses : The roots boiled in milk is a gooa tonic and also effective as an aphrodisiac (Mooss, 1977). The paste made from the roots is applied to the eyes in case of ophthalmia and is used as a remedy for scalding in gonorrhoea. Root is also useful against diabetes and spermatorrhoea.

Oxystelma secamone (Linn.) Karst.

Syn. **O.** *esculentum* R. Br.

Mal : Kinikinippala

Distribution : Southern dry mixed deciduous forests.

Description . Aglabrous twining herb with milky latex. Leaves simple, opposite, linear-lanceolate, 2-8 x 0.3-0.8 cm. Flowers large, pink or white, in lateral, 2-4 flowered subumbellate cymes. Fruit 3.5-6 cm long.

Uses : Decoction of the plant is used as a gargle in aphthous ulcerations of mouth and in sore throat. Latex also is used as a wash for ulcers. Root is considered specific for jaundice.

Pergularia daemia (Forsk.) Chiov.

Syn. *P. extensa* N. E. Br.

Daemia extensa R. Br.

Mal : Velipparuthi

San : Kurudaka

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Sandy soils with good drainage, slightly acidic, high potash and phosphate contents.

Description : A slender, bad smelling , pubescent climber with milky latex. Leaves simple, opposite, suborbicular-cordate, acuminate, pubescent beneath, 5-10 x 3.5-8 cm. Flowers small, greenish, in lateral cymes. Fruit a pair of reflexed follicles, lanceolate, echinate with soft spines, 5-7 cm long. (Plate XIV, Fig. 2)

Properties : Plant is expectorant and emetic.

Uses : Leaf juice is used to cure infantile diarrhoea, asthma and rheumatic swellings. Fresh leaves are used as a poultice in carbuncle with good effects. Root dark is used as a purgative.

Tylophora indica (Burm. f.) Merr.

Syn. *T. asthmatica* Wight & Arn.

Mal : Vallippala

Distribution : Southern moist mixed deciduous, Southern hill-top tropical evergreen forests and scrub jungles.

Doscription : A twining herb with many long fleshy roots. Leaves simple, opposite, ovate, elliptic or acuminate, cordate at base. mare or less pubescent beneath when young, 5-10 x 2.5-5 cm. Flowers greenish purlpe, in axillary umbellate cymes. (Plate XIV, Fig. 3)

Properties : Leaves are emetic, diaphoretic and expectorant.

Tylophora tenuissima (Roxb. ex Shult.) Wight & Arn.

Syn. *T. tenuis* Bl.

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and West coast tropical evergreen forests.

Description : A slender twining, glabrous herb. Leaves simple, opposite, ovate, elliptic or oblong, obtuse or acute, often apiculate, 2-3 5 x 0.8-2 cm. Flowers purplish, small, in lateral, paniculate cymes.

Properties : An infusion of the plant is alexipharmic. A decoction is antidote to argenic poison.

Uses : Plant is used as a cure for perspiration and urticaria.

Wattataka volubilis (Linn. f.) Stapf

Syn. *Dragea volubilis* Benth. ex Hook. f.

Marsdenia volubilis T. Cooke

Mal : Vatlakkakkakodi

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous forests and scrub jungles.

Description : A large climbing shrub, bark greyish yellow. Leaves simple, opposite, broadly ovate, acuminate. 5-15 x 4-10 cm. Flowers green or yellowish green, in lateral drooping, umbellate cymes. Fruit oblong, slightly tapering to a blunt point, rugosely striate.

Properties : Tender stalks and roots are considered as emetic and expectorant.

Uses : Plant is used in the treatment of cold and eye diseases. Leaves are applied to boils and abscesses.

Loganiaceae

Buddleia asiatica Lour.

Distribution : Southern moist mixed deciduous and West coast semievergreen forests, above 500 m altitude.

Description : A large shrub, bark thin, grey or greyish brown. Leaves simple, opposite, lanceolate, acuminate, glabrous above and white tomentose beneath, 6.5-12 x 0.8-3 cm. Flowers small, white, in terminal and axillary spikes.

Uses : The plant is used in Philippines for skin diseases and as an arbortifacient.

Strychnos aenea A. W. Hill

Syn. S. *bourdillonii* Brandis

Mal : Vallikanjiram

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Clay loam soils, slightly acidic, high in potash and phosphate.

Description : A very large climbing shrub with tendrils. Leaves simple, opposite, elliptic or ovate, abruptly acuminate, basally 3-nerved up to 12 x 5 cm. Flowers greenish, in many flowered terminal cymes. Fruit a berry, about 10 cm in diameter; seeds ovoid, flattened, about 2.5 cm long.

Uses : Decoction of the root is applied in cases of rheumatism ulcers, elephantiasis, fever and epilepsy.

Strychnos colubrina Linn.

Mal : Cherukanjiravalli

Distribution: West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Clay loam slightly acidic soils high in potash, and organic carbon.

Description : A large climbing shrub with thickened bifid tendrils. Leaves simple, opposite, ovate-elliptic, acute or acuminate, up to 10 x 5 cm. Flowers greenish, in cymes, arising from the mature stem. Fruit a berry, globose, about 1.5 cm in diameter.

Uses : Fresh leaves are applied to suppurating tumours. Fruit is used to treatment of mania. Root is given to check diarrhoea, and used as a liniment for pains in the joints. Roots are also used against intermittent fevers, cutaneous afflictions and pain and swelling from confluent small pox.

Strychnos nux-vomica Linn.

Mal : Kanjrram

San : Karaskara

Distribution : Southern moist mixed deciduous Southern dry mixed deciduous and Moist teak bearing forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic.

Description : A medium sized to large deciduous tree; bark thin, smooth, yellowish or blackish grey, covered with minute tubercles. Leaves simple, opposite, elliptic or ovate-elliptic, basally 3-nerved, 6-12 x 5-10 cm. Flowers greenish white, in terminal cymes. Fruit a berry, orange

red 3.5-5 cm in diameter seeds 3-4 flattened, greyish white.

Properties : Seeds are nervine tonic and stimulant. In excess doses it is a virulent poison. producing tetanic convulsions. It is a remedy in narcotic poisoning and against the effects of chronic alcoholism.

Uses : Bark is used against ulcers, skin eruptions and epilepsy. Wood is used to cure dysentery, fevers and dyspepsia. Leaves are applied as a poultice to wounds and ulcers. Seeds are given in cases of colic.

Strychnos potatorum Linn f.

Mal : Thettamparal, Thettamaram

San : Kadaka

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Sandy loam, slightly acidic soils, well drained, medium in potash, phosphate and organic carbon

Description : A small tree; bark brownish black. corky, branchlets lenticellate with swollen nodes. Leaves simple. opposite, ovate or ovate-lanceolate, basally 3-5 nerved, 5-10 x 3 5-7 cm Flowers white, in short axillary cymes. Fruit about 2 cm in diameter, containing 1 or 2 pale yellow circular compressed seeds (Plate XIV, Fig 4)

Properteis Plant is alexiteric and anthelmintic. It increases appetite. Seeds are emetic

Uses : Seeds are used as a local application in eye diseases. They are given as an emetic in dysentery and used against diabetes. The seeds are used to clear muddy water. Roots are used in the treatment of all kinds of leucoderma.

Gentianaceae

Canscora diffusa (Vahl) R. Br.

Mal : Jeerakappullu

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Description : A slender herb with 4-angled stem. Leaves simple, opposite, lower elliptic, petioled; upper ovate-lanceolate, sessile, small. Flowers small, pink, in lax terminal dichotomous cymes forming panicles.

Properties : Plant is a nervine tonic. It is used as a substitute for *Canscora, decussata.*

Exacum bicolor Roxb.

Distribution : Southern montane wet grasslands

Soil requirements . Silty loam, medium acidic soils, low in potash, medium in phosphate and high in organic carbon.

Description : An erect herb. Leaves simple, opposite, ovate or oblong-lanceolate, acuminate, 5-ribbed, up to 10 x 15 cm Flowers blue and white, in terminal cymes.

Properties : Plant is tonic and stomachic

Swertia angustifolia Buch -Ham. var. **pulchella** Burkil

Syn. *S. affinis* Cl.

Distribution : Southern montane wet scrub and Southern montane wet grasslands

Soil requirements : Clay loam, loose, strongly acidic soils.

Description : An erect herb reaching up to 1 m in height. Leaves simple, opposite, lanceolate. or linear-lanceolate up to 7.5 x 1.2 cm.

Flowers white, with blue spots, in terminal corymbose panicles.

Properties : Plant is bitter, stomachic, febrifuge and laxative, It is also used as a tonic.

Swertia corymbosa (Griseb.) Wight ex Cl.

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Soil requirements : Clay loam, loose, strongly acidic soils.

Description : An erect herb. Leaves simple, opposite, elliptic. or spathulate or linear-oblong, obtuse up to 3.5 x 1-2 cm. Flowers white or pale blue, in terminal corymbose cymes.

Properties : Plant is bitter, stomachic, febrifuge and laxative. It is also used as a tonic

Boraginaceae

Cordia dichotoma Forst. f.

Syn. C. *myxa* Roxb. auct. non Linn.

Mal : Cheruviri

Distribution : Occasional in moist teak bearing and Southern dry mixed deciduous forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, medium in potash and high in phosphate and organic carbon.

Description : A medium sized tree with drooping branchlets; bark grey or brown, with shallow vertical fissures. Leaves simple, alternate, broadly ovate or suborbicular, base truncate, or cordate, 3-ribbed at base, 7-12 x 6-11 cm. Flowers white, in terminal and axillary panicles. Fruit yellow or pink, ovoid, 2.5-3.5 cm long, seeds embeded in sticky mucialge.

Properties : Bark is astringent. Fruit is astringent, anthelmintic, diuretic, demulcent and expectorant.

Uses : Bark is used in the treatment of gripe, dyspepsia and wers. A paste of leaves is a good application of heal ulcers. Fruit is used in the treatment of diseases of lungs, spleen and urinary tracts.

Cordia wallichii G. Don

Mal : Viri

Distribution : Southern moist mixed deciduous forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, medium in organic carbon.

Description : A medium sized tree; bark brown, rough with longitudinal fissures. Leaves simple, alternate, ovate-orbicular, obtuse or acute at apex, truncate or cordate at base, pubescent beneath, 10-12 cm in either way. Flowers white, in terminal and lateral paniculate cymes. Fruit an ovoid drupe.

Properties : Leaves are aphrodisiac. Fruit is an expectorant. demulcent and astringent.

Uses : Leaves are used in the treatment of gonorrhoea. The ashes of the leaves are used as a wash in burning of the eyes. Fruit is used to treat bronchial afflictions and irritation of urinary passages. A decoction of the root is given as a gargle in stomatitis.

Rotula aquatica Lour.

Mal : Kaloorvenchi

Distribution : Along the banks of streams and rivers.

Description : A small branching shrub, branches often prostrate. Leaves simple, alternate, spathulate, up to 2.5 cm long. Flowers small, purple, on short lateral branches.

Uses : Root is used to treat piles, Kidney stones and venereal diseases.

Trichodesma indicum (Linn.) Lehmann

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Loamy soils in the slopes with good drainage, slightly acidic, low in potash and organic carbon and high in phosphate.

Description : An erect annual hispid herb. Leaves simple, ovate or oblong, obtuse or subacute, pubescent, sessile, *3* 5-10 x 0.5-5 cm. Flowers violet blue, solitary or in few flowered leaf opposed cymes.

Properties : Plant is diuretic. A cold infusion of leaves is considered depurative.

Uses : Plant is used as an emollient poultice. Root is applied to reduce swellings. particularly of the joints.

Convolvulaceae

Argyreia fulgens Chois.

Distribution : West aoast tropical evergreen and West coast semievergreen forests.

Description : An erect silky pubescent shrub. Leaves simple, alternate, elliptic, acuminate. attenuate at base. densely white pubescent beneath, up to 10x 5 cm. Flowers dark purple, in axillary cymes. Fruit a berry. crustaceous, 1.2 cm in diameter.

Properties : Leaves are antiphlogestic.

Uses : Leaves are used to treat skin diseases.

Cuscuta refleta Roxb.

Mal : Akasavalli, Moodillathali

Distribution : Southern dry mixed deciduous forest and scrub jungles.

Description : An yellow leafless, twining. slender parasitic herb. Flowers white. small, in lateral clusters. Fruit a capsule, depressed globose, 0.6-0.8 cm in diameter: seeds 2-4, black.

Properties . Plant is a purgative. Seeds are carminative, anthelmintic and alterative.

Uses : infusion of the plant is used as a wash for sores. The plant is also useful in the treatrnent of muscular pains, headaches, paralysis, diseases of the spleen, vomiting, lumbago, Jaundice and diseases of the eyes and of the heart. Stem is recommended in cases of bilious disorders.

Erycibe paniculata Roxb.

Mal ; lrumpiathali

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description : A large scandent shrub, young branches covered with reddish brown tomentum. Leaves simple, alternate. elliptic-oblong or obovate-oblong, 7.5-12 x 3.5-6 cm. Flowers small, white, fragrant in terminal pubescent panicles.

Uses : In Sri Lanka the bark is used against Cholera.

Evolvulus alsinoides (Linn.) Linn.

Mal : Krishnakranthi, kranthi

San : Vishnukrantha

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : In the depressions between hillocks on the slopes; favours sandy loam, medium acidic soils with medium potash and low phosphate and organic carbon contents.

Description : A small perennial herb with many prostrate silky pubescent branches and woody root stock. Leaves simple, alternate, elliptic-oblong, very variable. Flowers light blue, axillary, solitary or sometimes in pairs.

Properties : Plant is bitter, antifebrile, antiphlogistic and vermifuge. Plant juice improves memory (Joseph, 1977).

Uses : Plant is used against dysentery. Leaves are smoked in chronic bronchitis and asthma. A decoction of the roots is often administered against intermittent fevers (Mooss, 1977).

Ipomoea pes-tigridis Linn.

Mal : Pulichuvadi

San : Vyaghranakhi

Distribution : Southern moist mixed deciduous forests

Sot! requirements : Variety of soils with good drainage, favours slightly acidic soils high in potash, phosphate and organic carbon.

Description : A slender hairy climber. Leaves alternate, usually deeply 5-9 lobed; ovate-acuminate, hairy on both surfaces. Flowers white, in axillary pedunculate heads. Fruit a globose capsule, subtended by the calyx.

Properties : Root is a purgative.

Uses : Root is applied to boils and carbuncles. It is an antidote to poison.

Merremia umbellata (Linn.) Hallier f.

Syn. *Ipomoea cymosa* Roem.

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests; very frequent in forest clearings.

Soil requirements : In low lying site subjects to waterlogging in undulating areas; favours loamy soils, with poor drainge slightly acidic, high in potash and medium in phosphate.

Description : A slender climbing shrub. Leaves simple, alternate, ovate or oblong-lanceolate, rounded, cordate or hastate at base. Flowers white or cream coloured in axillary subumbellate cymes. Fruit a capsule; seeds with long spreading hairs.

Uses : Seeds are used in medicine.

Physalis peruviana Linn.

Mal : Njottanjodien

Distribution : Native of America, now frequently seen in forest plantations at altitudes above 1000 m.

Description : A pubescent herb. Leaves simple, alternate, ovate-acuminate, cordate at base, often oblique at base, pubescent on both surfaces, 4-12 x 2-7 cm Flowers solitary, axillary; corolla yellow with purple centre Fruit a berry, enclosed by the enlarged bladder like calyx

Properties : Plant is diuretic.

Uses: Leaf juice is given in cases of bowel complaints and worms.

Solanum indicum Linn.

Mal : Cheruchunta, Putharichunta

San : Kshudrabrihati

Distribution Seen along the road cutting in forests and forest plantations.

Soil requirements : Sandy loam soils with good drainage, strongly acidic, medium in potash and low in phosphate

Description : A much branched prickly undershrub; prickles large, with flattened base. Leaves simple, alternate, ovate, acute, subentire or slightly lobed, pubescent and sparsely prickly on both surfaces, 5-12 *x* 2.5 - 7.5 cm. Flowers purplish blue, in racemose extra-axillary cymes. Fruit a berry, globose. yellow, 0.8 cm in diameter.

Properties : Fruit are pungent, and appetising. The roots are also considered to possess the same properties (Mooss, 1977).

Uses : A decoction of the roots is useful in asthma, cough, fever and dyspepsia (Mooss. 1977). Leaves and fruits are rubbed up with sugar and used as external application for itich. Juice of leaves with fresh juice of giner is taken to stop vomiting.

Solanum stramonifolium N. Jacq.

Syn. S. *ferox* auct. non Linn.

Mal : Anachunta

Distribution: West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Slightly acidic soil with medium potash and phosphate and high organic: carbon contents.

Description : A stout prickly herb up to 3 m in height. Leaves simple. alternate, very large, ovate, acute, cordate at base, lobed, densely stellately hairy, spinescent on rhe nerves. Flowers white, in axillary racemes. Fruit a berry. densely covered with yellowish needle like hairs, 2.5-4 cm in diameter.

Properties : Fruits and roots are pungent, sedative, improve appetite and taste.

Uses : Plant is used to treat diuretic dropsy and gonorrhoea. Leaves are recommended for rheumatism. They are applied locally to relieve pain also. Stem, flowers and fruits are prescribed for burning *of* the feet attended with a vesicular, watery eruption. Bud and flower are used in the treatment of watery eyes. Fruit juice is given against sore throat. Seeds are used to cure toothache. Root is recommended for cough, asthma, catarrhal fever, chest pain and vomiting.

Scrophulariaceae

Artanema sesamoides Benth.

Mal : Vathamveratti

Distribution : West coast semi-evergreen forests, mostly confined to moist areas.

Soil requirements: Common in marshy localities and along the low lying banks of rivers where the flow has subsided. favours clayey soils.

Description : A stout herb attaining a height of about 2 m; stern quadrangular. Leaves simple, opposite, lanceolate, acute or acuminate, entire or serrate, 3 5-15 *x* 1-3 5 cm. Flowers fairly large, violet purple, in terminal lax racemes. Fruit globose; seeds many, oblong or rounded, or truncate at the end, covered with white tubercles. (Plate XV. Fig.

Properties : Seeds improve vitality and favour conception.

Uses : Seeds are used against biliousness. Decoction of the root is used to treat rheumatism, diarrhoea. kidney stones and syphilis.

Bacopa monnieri (Linn.) Wettst.

Syn. *Herpestis monniera* (Linn.) H. B. & K.

Moniera cuneifolia Michx.

Mal : Brahmi

San: Brahmi

Distribution : Confined to banks of streams in all forest types.

Soil requirements : Alluvial soils with impeded drainage.

Description : A glabrous somewhat succulent creeping herb, rooting at the nodes. Leaves simple, sessile, oblong or spathulate, obtuse, 0.6-2.5 x 0.2-0.5 cm. Flowers pale blue or white, solitary, axillary.

Properties : Plant is a nervine tonic, aperient and diuretic. It improves mental faculties and physical strength. It appears to be an anti-anxiety agent having adaptogenic effect (Singh & Singh, 1980).

Uses : The expressed juice of the plant is often prescribed in insanity, epilepsy and mental weakness. It is useful in oedema, anemia and fever (Mooss, 1977).

Scoparia dulcis Linn.

Mal : Meenankanni

Distribiition : Frequent in forest plantations.

Soil requirements: Variety of soils with good drainage, favours slightly acidic soils.

Description : A much branched annual herb. Leaves simple, in whorls of three, elliptic, acute, serrate. Flowers small, white, in axillary clusters. Fruit a small globose capsule, enclosed by the calyx; seeds many.

Properties : An infusion of the plant is used as emetic. Root is mucilaginous, astringent and emollient.

Uses : Infusion of the plant is used against ague. Decoction of the root is given in blennorrhagia and in excessive menstruation. Locally used against the treatment of urolithasis.

Sopubia delphinifolia (Roxb.) G. Don.

Distribution : Southern dry mixed deciduous forests and also in grasslands.

Soil requirements : Loamy soils, compact and strongly acidic.

Description : An annual much branched herb, stem grooved. Leaves opposite, 2.5-3.5 cm long, pinnatisect; segmenls filiform. Flowers pink, solitary, axillary or in few flowered terminal racemes.

Properties : Plant juice is astringent.

Uses : Plant juice is applied to the feet to heal sores caused by exposure to moisture.

Torenia asiatica (Linn.) Ktze. ex Schum.

Mal : Kakkappoovu

Distribution : Seen along the sides of water courses in Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements: Sandy loam soils, loose, slightly acidic.

Properties : A diffusely branched creeping herb. Leaves simple, opposite, ovate or lanceolate, serrate,

2.5-4.5 cm long. Flowers bluish purple with dark violet lobes, in axillary clusters.

Uses : Leaf juice is considered as a cure for gonorrhoea.

Bignoniaceae

Oroxylum indicum (Linn.) Vent.

Mal : Palakapaiyani

San : Dunduka, Syodaka

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Moist places with impeded drainage, favours sandy loam soils.

Description : A small to medium sized tree; bark smooth, brownish grey. Leaves opposite, 90-150 cm long, tripinnate near the base, bipinnate about the middle and simple pinnate towards the tip; leaflets ovate, acuminate, 3-5 on each pinnule. Flowers purplish, in large terminal racemes. Fruit flattened, 30-75 x 5-7 cm; seeds numerous, winged. (Plate XV. Fig. 2)

Properties : Bark is bitter, diaphoretic, purgative and stomachic. Fruit is expectorant and improves appetite. Root is one of the 'Dasamoola'. Root bark is astringent and carminative. It is also used as a tonic.

Uses : Bark is used against rheumatism. Fruit is used in the treatment of leucoderma. Root bark is used against diarrhoea and dysentery.

Radermachera xylocarpa (Roxb.) K. Schum.

Syn. *Stereospermum xylocarpum* Benth. & Hook. f.

Mal : Vedankorana

Distribution : West coast semi-evergreen, Moist teak bearing and Southern moist mixed deciduous forests.

Soil requirements : Sandy loam soils, well drained, slightly acidic.

Description : A small to medium sized deciduous tree; bark light grey. smooth, flaky. Leaves opposite, 30-120 cm long, bipinnate; leaflets lanceolate, acute. Flowers creamy white, in terminal corymbose panicles, Fruit woody, cylindrical, with hard tubercles, 30-70 cm long; seeds many, winged.

Uses : Oil from wood is used in cutaneous afflictions (Chopra *et al.*. 1956).

Stereospermum chelonoides (Linn. f.) DC.

Syn. S. *suaveolens* DC.

Mal : Poopoathiri

San : Padala, Padal

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Medium acidic soils with medium potash, low phosphate and high organic carbon contents.

Description : A large deciduous tree; bark grey, flaking off in large flat scales. Leaves opposite, imparipinnate; ieaflets 5-9, elliptic, acute or acuminate, pubescent beneath, 7.5-20 x 5-7.5 cm. Flowers dark purple, in terminal panicles. Fruit a linear capsule, 40-60 cm long, 2 cm broad, obscurely 4-ribbed; seeds many, winged.

Properties : Flowers are aphrodisiac. Root bark is considered to be cooling, diuretic and tonic. In

North India this species is the source of Patala.

Uses : Flowers are used against bilious diarrhoea and burning sensations. They are also used to check hiccough. Root and tender fruits are used the treatment of dyspepsia. cough and dropsy. Root is recommended in case of inflammations. eructations, vomiting, asthma, fever and diseases of the blood.

Stereospermum colais (Buch. - Ham. ex Dillw.) Mabberley

Syn. S. *chelonides* auct. non (Linn.f.) DC.

S. *tetragonum* DC.

Mal : Pathiri

San : Padala, Padalee

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements: Medium acidic, soils, medium in potash. low in phosphate and high in organic carbon.

Description : A large deciduous tree; bark pale brown. Leaves opposite, imparipinnate; leaflets 7-11, ovate-oblong, caudate-acuminate, 9-12 x 2.5-5 cm. Flowers yellowish, streaked with red veins, in lax terminal panicles. Fruits somewhat twisted, smooth, 20-45 cm long; seeds numerous. winged. (Plate XV, Fig.3)

Properties : A decoction of leaves, flowers and roots is a febrifuge. In South India this species is used for Patala in ayurvedic preparation.

Uses : Leaf juice is used to treat manical cases.

Acanthaceae

Andrographis paniculata (Burm. f.) Wall. ex Nees

A. subspathulata Cl.

Mal : Kiriyathu, Niiaveppu

San : Bhunimba

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Dry areas, favours sandy loam soils, slightly alkaline.

Description : An erect much branched herb; branches quadrangular. Leaves simple, opposite. lanceolate, acute, 5-7 *x* 1-2.5 cm. Flowers small pink, in lax axillary and terminal racemes or panicles. Fruit a capsule, linear-oblong, acute at both ends; seeds many.

Properties : Plant is febrifuge, alterative and anthelmintic. It has also got tonic properties.

Uses : Plant is administered in cases of debility. dysentery, dyspepsia and bronchitis. Root and Leaves are used syphilitic cachexia and foul syphilitic ulcers.

Barleria cristata Linn.

Mal : Mulkurinji

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Soil requirements : Sandy loam soils, well drained slightly acidic, with medium potash, high phosphate and organic carbon contents.

Description : A herb, stem densely hairly at the nodes. Leaves simple, opposite, elliptic-oblong, acute or acuminate, pubescent on both surfaces, 6-10 x 2.5-4 cm. Flowers blue, in axillary and terminal dense spikes. Fruit ellipsoid, acute at both ends; seeds 4, silky hairy.

Uses: Plant is used against fevers, inflammations, bronchitis, biliousness, tympanitis and asthma.

Dipteracanthus prostratus (Poir.) Nees

Syn. *Ruellia prostrata* Poir.

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Variety of soils; sandy loam, slightly alkaline soils usually in tho slopes.

Description : A small prostrate or straggling herb. Leaves simple, opposite, ovate or elliptic. acute, 2-7 x 1-4 cm. Flowers pale blue or purple, solitary, axillary. Fruit a capsule clavate, slightly pubescent; seeds 16-20, hygroscopically hairy at the margins.

Properties : Plant is febrifuge and emetic. Leaf is diaphoretic and insect repellent.

Uses : Leaf is used in the treatment of chronic rheumatism, eczema, facial paralyis, cephalaigia and hemiplegia. Leaf juice is an efficient remedy in colic of children.

Ecbolium viride (Forsk.) Merr.

Syn. *E. linneanum* Kurz

Mal : Odiyamadantha

San : Neelasahachara

Distribution : West coast semievergreen forests.

Soil requirements : Sandy loam soils, medium acidic.

Description : An undershrub, stem thickened abcve the nodes. Leaves simple, opposite, lanceolate, or elliptic-lanceolate, acurninate, acute at base, 7-17 X 3-6 cm. Flowers bluish green. in terminal dense spikes, bracts foliaceous.

Properties : Bark is emollient. Flowers are vulnerary.

Gymnostachyum febrifugum Benth.

Distribution : West coast tropical evergreen forests in North Kerala.

Soil requirements : Sandy clay loam soils, strongly acidic, high in organic carbon

Description : A nearly stemless scapigerous herb. Leaves simple, subradical, ovate. rounded at base. decurrent on the petiole, about 15 cm long. Flowers blue, in terminal spicate racemes.

Uses : Leaves are given as a remedy for gonorrhoea and ear diseases.

Hygrophila salicifolia (Vahl) Nees

Syn. *H. angustifolia* auct. non R. Br.

Distribution : Seen along swampy places in West coast semievergreen and West coast tropical evergreen forests.

Soil requirements : Sandy loam soils with impeded drainage.

Description : An erect much branched herb, stem obtusely subquadrangular. Leaves simple, opposite, variable. lower obovate or oblong; upper lanceolate. Flowers purplish blue, in dense axillary clusters. Fruit subquadrangular, 1-2 cm long; seeds 20-28. orbicular.

Properties : Leaves are strongly diuretic.

Uses : Leaves are used in poulticing swellings.

Justicia procumbens Linn.

Distribution : Southern mixed deciduous. Moist teak bearing and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils; slightly acidic soils with medium potash and organic carbon contents.

Description : A small pubescent herb with many slender divaricate branches, rooting at the nodes. Leaves simple, opposite, elliptic-lanceolate or linear, variable, up to 6 cm long. Flowers small, pale violet or pink, in terminal dense cylindrical spikes.

Properties : Plant is laxative, diaphoretic and diuretic.

Uses : Plant *is* used as a substitute for *Fumaria parviflora.* Juice of leaves is used to treat opthalmia.

Nilgirianthus ciliatus (Nees) Bremek.

Syn. *Strobilanthes ciliatus* Nees

Mal : Karimkurinji

Distribution: West coast tropical evergreen forests.

Soil requirements : Sandy clay loam soils, strongly acidic, poorly drained.

Description : An undershrub, stem often winged at the nodes. Leaves simple, opposite, lanceolate, acuminate, serrate, up to 11 x 3.5 cm. Flowers white, or lilac, in dense, 1-2 cm long spikes. (Plate XV, Fig. 4)

Properties : Leaves, roots and seeds are diuretic.

Uses : Leaves are applied externally in gout, lumbago, pain in joints etc. (Mehrotra and Kundu. 1962). Leaves, roots and seeds are used in the treatment of jaundice, dropsy, rheumatism, anasarca and diseases of the urino-genital tract. Seeds are used against gonorrhoea and spermatorrhoea.

Rhinacanthus nasutus (Linn.) Kurz

Syn. *R. communis* Nees

Mal : Nagamulla

Distribution : Frequent in forest plantations and forest clearings.

Soil requirements : Variety of soils favours loamy sand, medium acidic soils.

Description : A shrub. Leaves simple, opposite, elliptic-lanceolate, acute, up to 12 x 7 cm. Flowers white, sessile or shortly pedicelled. solitary or 2 or 3 together, on lax terminal panicles.

Properties : Root is an aphrodisiac.

Uses: Leaves, roots and seeds are useful against ringworm and skin diseases.

Rungia pectinata (Linn.) Nees

Syn. *R. parviflora* Nees

Mal : Malankara

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils; favours slightly acidic soils, medium in organic carbon.

Description : A much branched straggling herb. Leaves simple, opposite, elliptic-lanceolate or oblong-lanceolate, variable in size. Flowers blue, small, in terminal or axillary one sided spikes; bracts prominent, in two rows.

Properties : Juice of leaves is cooling and aperient. Root is febrifuge.

Uses : Leaf juice is given to children suffering from small pox. Leaves are applied to contusions *to* relieve pain and diminish swellings.

Verbenaceae

Callicarpa tomentosa (Linn.) Murray

Syn. C. *lanata* Linn.

Mal : Thontitherakam

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Variety of soils. slightly acidic well drained.

Description : A large shrub to a small tree, young branches stellately pubescent. Leaves simple, opposite. ovate-acuminate, glabrous above, white tomentose beneath, 15-22 x 7-10 cm. Flowers small, reddish purple, in densely tomentose axillary cymes. Fruit a small black globose berry.

Properties : Plant is diuretic.

Uses : Leaves are used to prepare a wash for aphthae of the mouth. Decoction of bark and root is used to treat fever, hepatic obstruction and skin diseases.

Clerodendrum serratum (Linn.) Moon

Mal : Cheruthekku

San : Bharngi

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and Moist teak bearing forests.

Soil requirements : Variety of soils with good drainage, slighltly acidic, medium in organic carbon.

Description : A shrub, stem quadrangular. Leaves simple, in whorls of three or opposite. oblong or elliptic, acute, coarsely serrate, 10-15 x 6 cm. Flowers bluish white or pinkish white. in showy terminal panicles. Fruit ovoid, usually 4-lobed. about 6 mm long.

Properties : Root is stomachic and anthelmintic.

Uses : Leaves are recommended in cases of cephalalgia and ophthalmia. Root is useful in the treatment of febrile and catarrhal afflictions, malaria, bronchitis, asthma, diseases of blood, tumours, hiccough, epilepsy and tuberculous glands.

Clerodendrum viscosum Vent.

Syn. C. *infortunatum* Linn.

Mal : Peruku. Peruvelam, Thuniyangam

Distribution : Frequent in areas of forest clearings and plantations.

Soil requirements : Variety of soils, favours sandy loam soils, well drained, slightly acidic.

Description : A large shrub, young branches pubescent. Leaves simple, opposite, ovate or suborbicular, acuminate, cordate at base, tomentose, 10-25 x 8-20 cm. Flowers white, in terminal panicles. Fruit bluish black, fleshy, subtended by the enlarged pink calyx.

Properties : Plant is an aphrodisiac. Leaf is tonic' and antiperiodic. Fresh leaf juice is vermifuge and febrifuge in malaria. especially to children.

Uses : Plant is used in the treatment of leucoderma and diseases of the blood. Leaves and roots are applied externally for tumours and certain skin diseases and given internally in cases of haemorrhoidal disturbances, conjection and torpidity of the bowel.

Gmelina arborea Roxb.

Mai : Kumbil, Kumizhu

San : Kasmari

Distribution : Sporadic in Southren moist mixed deciduous, Moist teak bearing and Southern secondary moist mixed deciduous forests.

Soil requirements : Variety of soils; favours loamy sand, slightly acidic soils medium potash and organic carbon and low phosphate contents.

Description : A medium sized to large tree; bark smooth, yellowish-grey. Leaves simple, opposite, deltoid ovate, acuminate, truncate or cordate at base, 2 glands present at the base of the lamina,10-20 x 7.5-12 cm. Flowers fairly large, brownish yellow, in terminal cymose panicles. Fruit an ovoid drupe, 2 cm long.

Properties : Leaf juice *is* demulcent. Flowers are cooling and astringent. Fruit is bitter. cooling. diureric, tonic, aphrodisiac, alterative and astringent to the bowels. It promotes the growth of hair. Root is one of the 'Dasmoola'. It is bitter, indigestible, stomachic, galactagague, laxative and anthelmintic. It improves appetite.

Uses : Leaf juice is used in the treatment of gonorrhoea. It is also used against cough and to remove foetid discharges from ulcers. Flowers are recommended for leprosy and blood diseases. Root is used in the treatment of hallucinations, thirst, piles, fevers and urinary discharges.

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

Syn. *l aculeata* Linn.

Mal : Arippu, Kongini, Poochedi

San : Chathurangi

Distribution : Frequent in forest plantations.

Soil requirements : Flourishes well on flat and hill areas and on a variety of soils including poor gravel and laterite.

Description : A straggling shrub, branches 4-angled, prickly. Leaves simple, opposite. ovate, acute, crenate, rugose, pubescent on both surfaces, 3.5-6 x 2.5-3.5 cm. Flowers yellowish with orange-red centre in short umbellate spikes. Fruit a drupe, globose, purple, about 3 mm in diameter.

Properties : The plant is considered vulnerary, diaphoretic, carminative, antiseptic and antispasmodic. Essential oil of seeds show anthelmintic activity against tapeworm (Avddhoot *et al.,* 1980.)

Uses : A decoction of the plant is given in tetanus, rheumatism and malaria. Decoction of leaf is given against flue, cold and yellow fever. Leaf juice is used to treat dysentery. Flowers and young leaves are given against consumption (Wesley Wong. 1976).

Premna herbacea Roxb.

Distribution : Southern moist mixed deciduous forest in North Kerata.

Soil requirements : Sandy loam slightly acidic soils, medium in potash and phosphate and low in organic carbon.

Description : A small herb with woody root stock. Leaves simple, opposite, ovate, serrate, sessile. usually pressed close *to* the ground, up to 10 x 7.5 cm. Flowers white, in small corymbs. Fruit globose.

Uses : A preparation of root is given internally for rheumatism.

Premna tomentosa Willd.

Mal : Kattuthekku. Naithekku

Distribution : Southern moist mixed deciduous forests.

Soil requirements: Sandy loam soils, slightly acidic with low organic carbon contents.

Description : A small to medium sized tree, young branches tomentose: bark light greyish brown. Leaves simple. opposite, ovate-acuminate, obtuse or cordate at base, stellately tomentose below, up to 20 x 12 cm. Flowers small, greenish yellow, in paniculate cymes. Fruit a drupe, subglobose.

Uses : Oil from the root is used as a remedy for stomach disorders.

Stachytarpheta urticaefolia (Salisb.) Sims.

Syn. S. *indica* Vahl

Mal : Kadapananth

Distribution : Seen in forest plantations.

Soil requirements : Variety of soils: favours sandy loam. medium acidic, low in potash and phosphate and high in organic carbon.

Description : A herb. Leaves simple, opposite, elliptic-ovate, obtuse or acute, cuneate and decurrent at the base, serrate. Flowers blue, in terminal, slender spikes with closely packed bracts.

Uses : In Brazil the plant is used externally for purulent ulcers and given internally against fever and rheumatic inflammations.

Tectona grandis Linn. f.

Mal : Thekku

San : Sakam, Saka

Distribution : Mostly seen in the Moist teak bearing forests. Raised extensively in plantations.

Soil requirements : Variety of soils; favours loose soils with plenty of moisture. slightly acidic, medium in potash, low in phosphate and high in organic carbon.

Description : A large deciduous tree; bark light brown, young branches 4-angled. Leaves simple, opposite, ovate or obovate. acute or acurninate, base usually decurrent on the petiole, softly tomentose below, 30-60 x 25-30 cm. Flowers small, white, in large terminal panicles. Fruit enclosed by the enlarged calyx.

Properties : Wood is acrid, cooling, demulcent, laxative and sedative. Bark is astringent. Fruits and seeds are diuretic. Oil from seeds promotes growth of hair. Root juice dissolves coagulate blood (Van Rheede, 1679).

Uses : Wood is used in the treatment of biliousness. piles, leucoderma, dysentery. The tribals of Bastar use the oil obtained by distillation of wood chips to cure eczema and ringworm (Jain, 1965).

Vitex leucoxylon Linn. f.

Mal : Attunochi

Distribution : Southern moist mixed deciduous forests; mostly seen along the banks of streams.

Soil requirements : Clayey soils, slightly acidic with mediurn potash and low phosphate contents.

Description : A small deciduous tree; bark grey, smooth. Leaves opposite, palmately compound; leaflets 3-5, elliptic or lanceolate. 7.5-12.5 x 2.5-4 cm. Flowers white, in axillary corymbose dichasial cymes.

Fruit a drupe, ovoid, dark purple. 2 cm long.

Properties : Fruit is vermifuge. Bark and roots are astringent.

Uses : Leaves are smoked in catarrh and headache. Root is recommended for intermittent fever.

Labiatae

Anisochilus carnosus (Linn. f.) Wall.

Mal : Karpuravalli, Padukurkka

Distribution : Southern moist mixed deciduous forests, often growing among the rocks.

Soil requirements : Variety of soils, commonly in sandy loam, well drained, slightly acidic soils, rnedium in organic carbon.

Description : An annual erect herb, stem bluntly 4-angled, often tinged with red. Leaves simple, opposite, broadly ovate, obtuse, crenate, base subcordate or rounded, somewhat fleshy, usually pubescent beneath, 2.5-6 x 1.2-4 cm. Flowers pale purple, in dense cylindric spikes. Seeds small, suborbicular, compressed, brown.

Properties : Plant is stimulant and expectorant.

Uses : Juice of fresh leaves is given against coughs and colds.

Anisomeles indica (Linn.) Ktze.

Syn. *A. ovata* R. Br.

Distribution : Southern moist mixed deciduous forests.

Soil requirements : Variety of soils, usually in sandy loam with good drainage, slightly acidic, medium in organic carbon.

Description : Asuffruticose pubescent herb, stem acutely 4-angled. Leaves simple. opposite, ovate, acute, crenate, truncate or subcordate at base, pubescent on both sides, 3.5-9 x 2.5-6 cm. Flowers bluish purple, in dense whorls in terminal spikes, Seeds broadly ovoid, 0.2 cm long, nearly black.

Properties : Plant is carminative and astringent. It has got tonic properties also.

Uses : Oil from the plant is used against uterine afflictions.

Anisomeles malabarica (Linn.) R. Br.

Mal : Karimthumpa, Pemaruthi

Distribution : Southern moist mixed deciduous and West coast semievergreen forests,

Soil requirements : Variety of soils, well drained, slightly acidic, medium in organic carbon.

Description : A densely tomentose shrub, stem obtusely 4-angled. Leaves simple, opposite, oblong-lanceolate, acute, rounded or shortly cuneate at base, very thick, 5.5-10 x 2-4.5 cm. Flowers purple, in dense whorls, in terminal spikes. Seeds ellipsoid, brown, 3-4 mm long.

Uses : Decoction of the plant or essential oil distilled from leaves is used externally in rheumatism, infusion of leaves is given in cases of colic, dyspepsia catarrhal afflictions. intermittent fevers and fever arising from teething in children.

Calamintha umbrosa (Bieb.) Fisch. Mey.

Distribution : Southern montane wet scrub jungles and Southern hill-top tropical evergreen forests.

Soil requirements : Loamy soils, slightly acidic, low in potash and phosphate and high in organic carbon.

Description : A slender straggling pubescent herb. Leaves simple, opposite, ovate, serrate, up to 3.5 cm long. Flowers white or purplish, in axillary whorls. Seeds small, subglobose, smooth.

Properties : Plant is antiphlegmatic and anthelmintic. It improves digestion.

Colebrookea oppositifolia Sm.

Distribution : West coast tropical evergreen forests.

Soil requirements : In the slopes in sandy loam soils, strongly acidic with low potash and phosphate and high organic carbon contents.

Description : A much branched shrub; young branches, grooved, pubescent. Leaves simple, opposite or in whorls of three, oblong-lanceolate, acute at base, crenulate, pubescent on both sides, 8-15 x 2-4.5 cm. Flowers very small, white, in terminal paniculate spikes. Seeds very small, oblong-ovoid, hairy at the tip.

Uses : Leaves are applied to wounds and bruises. A preparation of root is used in epilepsy.

Leucas zeylanica R. Br.

Distribution : Southern montane wet grasslands.

Soil requirements : Slightly low lying areas with better moisture conditions in sandy loam soils, strongly acidic. low in potash and phosphate and high in organic carbon.

Description : An erect much branched herb, branches 4-angled, grooved, hispid with long spreading hairs. Leaves simple, opposite. subsessile, linear-lanceolate, margin slightly recurved, entire or serrulate. hairy on both surfaces, 2.5-7.5 x 0.4-1.2 cm. Flowers white, in terminal whorls. Seeds ovoid-oblong, smooth, brown, 0.3 cm long.

Uses : Plant juice is a remedy for scabies, skin diseases, headache and colds.

Micromera capitellata Benth.

Distribution : Southern montane wet scrub jungles and grasslands.

Soil requirements : Strongly acidic soils with plenty of humus, low in potash and phosphate contents.

Description : A small herb with slender stems and woody rootstock. Leaves simple, opposite, ovate, subobtuse, pubescent on both sides, 1-2.5 *x* 0.6-1.5 cm. Flowers pale violet, sometimes white, very small, in verticillate distant cymes in the axils of floral leaves.

Properties : Plant is aromatic and carminative.

Uses: Used as a substitute for *Mentha piperita.*

Orthosiphon grandiflorus Boldingh.

Syn. **O.** *stamineus* Benth.

Mal : Kattuthrithavu

Distribution : West coast semievergreen and West coast tropical evergreen forests.

Soil requirements : Variety of soils; favours clayey soils, slightly acidic.

Description : An erect herb with woody rootstock. Leaves simple, opposite, ovate-acuminate, cuneate at base, serrate, glabrous up to 10 *x* 5 cm. Flowers white or lilac in

whorls in terminal racemes. Seeds ellipsoid, marked with wavy lines.

Uses : Leaves are used against kidney and bladder diseases.

Plantaginaceae

Plantago asiatica Linn.

Syn. *P. major* Hook. f.

Distribution : Southern montane wet scrub jungles arid Southern montane wet grasslands.

Soil requirements : Clay loam, slightly acidic soils medium in potash and high in phosphate and organic carbon.

Description : An erect herb with stout root stock. Leaves simple, radical, ovate or ovate-oblong, obtuse or subacute, entire or toothed, base decurrent on the petiole, 2.5-12 cm long. Flowers small, crowded or scattered on long slender lax spikes. Seeds angled, rugulose, black, 4-8 per fruit.

Properties : Leaves and roots are astringent. Seeds are tonic and stimulant.

Uses : Leaf juice is used as an eyewash in ophthalmia (Wesley Wong. 1976) and is applied to bruises. Leaves and roots are recommended against fever, Seeds is an useful remedy for dysentery. In Japan the watery extract of the seed is given for whooping cough.

Nyctaginaceae

Boerhavia diffusa Linn.

Mal : Thazhuthama, Thavizhama

San : Punarnava

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Sandy soils, slightly acidic with low potash and phosphate contents.

Description : A stout herb with large fusiform roots and with prostrate or ascending 50-100 cm long shoots, thickened at the nodes. Leaves simple, opposite, unequal in size, broadly ovate or sub-orbicular, somewhat undulate. Flowers small, pink, in 4-10 flowered umbels. forming axillary and terminal panicles. Fruits clevate. 5-ribbed, glandular, 3 mm long.

Properties: Root is diuretic, expectorant, digestive, stimulant and laxative. It cures food poisoning.

Uses : A decoction of the roots in milk is often prescribed in oedema with much benefit (Mooss, 1977). Roots are used also in the treatment of asthma, anaemia and internal inflammation.

Amaranthaceae

Achyranthes aspera Linn.

Mal : Kadaladi

San : Apamarga

Distribution : Laterite thorn forests and scrub jungles.

Soil requirements 1 Sandy soils, in the slopes with good drainage and permeability, medium acidic, medium in potash and low in phosphate.

Description : An erect herbaceous undershrub, branches terete or obscurely 4-angular, pubescent. Leaves simple, opposite, elliptic or obovate, very variable in shape. Finely pubescent on both Eides, 3.5-6 x 2.5-4.5 cm. Flowers greenish white, deflexed, in elongate terminal spikes. Fruit an utricle, subtended by the spinescent bracteoles.

Properties : Plant is pungent, purgative and diuretic. Infusion of the root is astrigent.

Uses : The plant is used in the treatment of piles, enlargements of the cervical glands. dropsy, soils, skin eruptions and colic. The ashes of the whole plant is often prescribed in ascites and anasarca (Mooss, 1977). Leaf juice is applied to wounds. Seeds and leaves are used against hydrophobia. Leaves are used in the preparation of the ointment 'Zambuk' (Joseph, 1977) A paste of seeds with water in which rice has been washed, is reckoned to be beneficial in cases of bleeding piles (Mooss. 1977).

Achyranthes bidentata Bl.

Distribution : Southern hill-top tropical evergreen forests.

Soil requirements : Marshy areas with poor drainage and permeability, favours medium acidic soils with low potash and phosphate contents.

Description : An erect herb with slender pubescent branches. Leaves simple, opposite, ovate-lanceolate, acuminate. very variable in shape and size, pubescent or glabrous. Flowers small, greenish, in slender spikes.

Properties : Plant is diuretic and astringent.

Aerva lanata (Linn) Juss.

Mal : Beiippuvu, Cherula

San: Bhadra

Distribution : Southern dry mixed deciduous and Southern moist mixed deciduous forests. Frequent in forest plantations.

Soil requirements : Sandy clay loam soils with good drainage and permaability, slightly acidic, medium in potash, phosphate and organic carbon.

Description : A small herb with a long tap root and many pubescent shoots. Leaves simple, alternate, elliptic. obovate or suborbicular. pubescent on both sides, 2-3 x 0.8-1.5 cm. Flowers very small, greenish white, in small dense axillary spikes. (Plate XVI, Fig 1)

Properties : Plant is vermifuge, diuretic and lithentriptic (Mooss. 1978). Root is diuretic and demulcent.

Uses · Plant is used to treat lithiasis. Root is used against strangury (Mooss. 1978).

Cyathula prostrata (Linn.) Bl.

Mal : Cherukadaladi

Distribution : Seen in moist areas in West coast semievergreen and West coast tropical evergreen forests at lower elevations.

Soil requirements : Variety of soils with poor drainage and permeability. slightly acidic.

Description : A slender prostrate herb, rooting at the lower nodes. Leaves simple, opposite, elliptic-rhomboid or ovate. Flowers small, pale violet. in lax terminal spikes. (Plate XVI, Fig. 2)

Uses : Plant is used as an external applicant for various skin diseases. Decoction of roots is given for dysentery.

Chenopodiaceae

Basella alba Linn.

Mal : Basala

San : Upodaka. Upodika

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Sandy loam soils with good drainage and permeability, strongly acidic to slightly alkaline.

Description : A slender, somewhat succulent twining herb. Leaves simple, alternate, ovate, acute, rounded or cordate at base, rather thick, 5-10 x 2.5-7 cm. Flowers white, in axillary pedunculate spikes. Fruit globose, fleshy. 0.5 cm in diameter.

Properties : Plant is sweet in taste, laxative, aphrodisiac, unctuous. cooling and alleviative of alcoholism (Mooss, 1977).

Uses : Leaf is used in the treatment of gonorrhoea, balanitis, urticaria and bleeding piles. Leaves are boiled in milk, pounded and reduced to a pulp and applied to boils to hasten suppuration (Mooss, 1977).

Chenopodium ambrosiodies Linn.

Mal : Kattayamodakam

Distribution : Frequent in the Eucalyptus plantations at Munnar.

Soil requirements : Loose clay loam, strongly acidic soils.

Description : An erect much branched glandular pubescent herb. Leaves simple, alternate, oblong-lanceolate, sinuate-dentate, the upper leaves almost entire, very variable in size, Flowers greenish yellow, very small, clustered in terminal and axillary simple or paniculate spikes. Seeds very small, orbicular, smooth and shining.

Properties : Plant is anthelmintic. Essential oil is tonic and antispasmodic.

Uses : Essential oil from the plant is used in the treatment of nervous disorders.

Polygonaceae

Polygonum glabrum Willd.

Distribution : West coast semi-evergreen and West coast tropical evergreen forests; mostly seen along the banks of streams.

Sail requirements : Sandy clay loam soils. well drained, slightly acidic, with high potash and organic carbon and medium phosphate contents.

Description : A stout herb, stem, procumbent below, usually reddish. Leaves simple, alternate, lanceolate. acuminate, tapering at the base, 7-20 x 2-3 cm; stipules closely sheathing the stem. Flowers small, pink, in paniculate slender racemes Seeds small, suborbicular. black, shining.

Properties : Plant is a febrifuge.

Uses : An infusion of leaves is used against colic.

Rumex nepalensis Spreng.

Distribution : Southern hill-top tropical evergreen forests and Southern montane wet scrub jungles.

Soil requirements : Loose strongly acidic soils with good drainage and permeability.

Description : A tall stout herb, often with tuberous roots. Leaves simple, alternate, oblong or gular-ovate, acute or obtuse, cordate at base, long petioled, up to 35 x 12 cm. Flowers greenish yellow, in axillary clusters.

Properties : Root is purgative.

Uses : An infusion of leaves is given in colic and applied to syphilitic ulcers.

Aristolochiaceae

Aristolochia indica Linn.

Mal : Garudakodi, Karanavalli, Karalakam Iswaramooli, Iswaramulla

San : Iswari, Nakulashta

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and West coast semievergreen forests.

Soil requirements : It grows under a variety of climatic and soil conditions however unfavourable in poor and dry soils.

Description : A slender climbing shrub. Leaves simple, alternate, variable in shape, linear to ovate-oblong, acute, rounded or cordate at base, 9-12 x 5-7 cm. Flowers greenish yellow, in few flowered axillary racemes. Fruit an oblong, 6-valved capsule, 3-5cm long; seeds many, winged. (Plate XVI, Fig. 3)

Properties : Plant is considered to be antipoisonous, antiinflammatory, anodyne, cardiac and nervine stimulant, carminative. anthelmintic, blood purifier, expectorant, diuretic, diaphoretic and also uterine contractive (Karnick & Jopat, 1969). Fresh leaves remove constipation in children. In Murshidabad the plant is used as an abortifacient. B. coumaric acid, isolated from the roots is effective as an antifertilitic agent (Pakrashi & Pakrashi, 1979). Root is tonic, stimulant, emmenagogue, emetic and alexiteric.

Uses : Seeds are used to treat biliousness, dry cough and pain in the joints. Roots are recommended in cases of Cholera, diarrhoea and leucoderma.

Thottea siliquosa (Larnk.) Ding Hou

Syn. *Apama siliquosa* Lamk.

Bragantia wallichii R. Br.

Mal : Alpam

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils poorly drained, strongly acidic.

Description : An erect shrub. Leaves simple, alternate, oblong-lanceolate, long acuminate, 3-5 ribbed at the base, pubescent below, 12-22 x 3-5 cm. Flowers dark purple, in axillary cymes. Fruit a linear capsule, 7-10 cm long. (Plate XVI. Fig. 4)

Properties : The root is considered to be antivenomous by the local vaidyans.

Uses : A preparation of the piant is said to be beneficial for carbuncles and inveterate ulcers. Roots are used in the treatment of cholera, diarrhoea and dysentery.

Piperaceae

Piper longum Linn.

Syn. *Chavica roxburghii* Miq.

Mal : Thippali

San : Pippali

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Soil requirements : Variety of soils with good drainage and permeability, favours sandy loam, medium acidic soils.

A slender undershrub, creeping and rooting at the nodes. Leaves simple, alternate. ovate or oblong, acute, unequally

cordate at base, 7-ribbed. Flowers very small, in slender spikes. Fruit red when ripe. (Plate XVII, Fig. 1)

Properties : Dried fruits are pungent, hot in action, aphrodisiac. laxative and curative of dysphonia and cough. Dried unripe fruit is alterative and tonic. Root is pungent, stomachic, laxative anthelmintic and carminative. It improves appetite.

Uses : A paste of fruit with ghee and rock salt is much beneficial in cough (Mooss, 1977). It is given internally against colic and cholera. Decoction of immature fruit and root is given in chronic bronchitis. Root is used in the treatment of bronchitis, abdominal pains, tumours and diseases of the spleen.

Piper nigrum Linn.

Mal : Kurumulaku Kodi

San : Mareedha-valli

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Variety of soils, favours loamy strongly acidic soils.

Description : A stout climbing shrub, rooting at the nodes. Leaves simple, alternate, broadly ovate, acuminate, 5-9 ribbed, base unequal, 10-17 x 5-10 cm. Flowers minute, on slender spikes, up to 10 cm long. Fruit globose, 0.5 cm in diameter, red when ripe.

Properries : Fruit is not very hot in action, easily digestible, appetising and a digestive stimulant. The undriedgreen fruits are sialagogue.

Uses : Powdered fruit with ghee, honey and sugar may be taken in cases of alteration of voice and cough (Mooss, 1977). Fruit is used as a stimulant in weakness following fever, vertigo and coma; as stomachic in dyspepsia and flatulence; as anti-periodic in malarial fever and as alterative in paraplegia and arthritic diseases.

Piper trioieum Roxb.

Syn. *P, attenuatum* Buch.-Ham.

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Strongly acidic, loose clay loam soils.

Description : A slender climber, stem often zig-zag and rooting at the nodes. Leaves simple, alternate, ovate, suborbicular, acuminate, base cordate, often oblique, up to 10 x 8 cm. Fruit globose, very small.

Properties : Root is an excellent diuretic.

Chloranthaceae

Sarcandra chloranthoides Gardn.

Syn. *Chloranthus glaber* (Thunb.) Makino

C. *brachystachys* Bl.

Distribution : West coast tropical evergreen forests above 700 m altitude.

Soil requirements : Loamy soils, loose, strongly acidic.

Description : A small shrub. Leaves simple, opposite, lanceolate, coarsely serrate, up to 17 cm long. Flowers small, in terminal spikes. Berry globose, purplish black. (Plate XVIII, Fig. 2)

Properties : Plant is a good stimulant.

Myristicaceae

Myristica malabarica Lamk.

Mal : Kattujathi

Distribution : West coast tropical evergreen and Myristica swamp forests.

Soil requirements : Strongly acidic loamy soils with poor drainage and permeability.

Description : A medium sized tree: bark greenish black, smooth. Leaves simple, attenuate, linear-oblong, subacute, 10-20 x 5-10 cm. Male flowers creamy yellow, in panicles; female in axillary clusters of 3-4. Fruit cylindrical, 5-7.5 x 2.5 cm; aril yellow, irregularly lobed.

Uses : Fat from the seeds is applied *to* indolent ulcers; it allays pain, cleanses the surface and establishes healthy action.

Lauraceae

Cinnamomum macrocarpum Hook. f.

Syn. C. *iners* Reinw.

Mal : Karintholi

Distribution : West coast tropical evergreen forests.

Soil requirements : Loose, loamy, strongly acidic soils.

Description : A medium sized to large tree. Leaves simple. subopposite. oblong or oblong-lanceolate, acute or acuminate, 3-ribbed, up to 35 x 11 cm. Flowers small, in axillary and terminal pubescent panicles.

Properties : Leaves and bark are carminative, stimulant, diuretic, diaphoretic, deobstruent and galactagogue. The *oil* distilled from the leaves is a powerful stimulent.

Uses : Seeds are given to children in cases of dysentry and cough.

Cinnamomum verum J. S. Presl

Mal : Ilavangam, Karuva, Vayana

San : Thwaku

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Clay loam soils, slightly acidic.

Description : A small to medium sized tree, bark reddish brown, smooth. Leaves simple, subopposite, oblong, acute, usually rounded at base, 3-5 ribbed, up to 15 x 7 cm, bright pink when young, glossy. Flowers small, grey or pale yellow, in terminal and axillary panicles.

Properties : Bark is aromatic, astringent, laxative, stimulant, carminative, antispasmodic, haemostatic. stomachic, germicide, aphrodisiac and anodyne. The oil from the bark is styptic, carminative, promotes appetite and emmenagogue. It is a nervine stimulant but in large doses it is an irritant and narcotic poison.

Uses : Bark is useful for checking nausea and vomiting. It is used to treat biliousness, thirst, parched mouth, bronchitis, diarrhoea, urinary diseases, influenza and diseases of the heart and rectum.

Litsea glutinosa (Lour.) Robsn.

Syn. *L. chinensis* lamk.

L. sebifera Pers.

Mal : Kallakaruva

Distribution : West coast semi-evergreen forests.

Soil requirements : Variety of soits with good drainage and permeability, favours loamy soits, slightly acidic:

Description : A smal l medium sized tree; bark brown. Leaves simple

alternate, elliptic or oblong, obtuse, glabrous or grey pubescent benearh. 10-18 x 6-8 cm. Flowers small, white or yellowish, in axillary corymbose or racemose few flowered umbels.

Properties : Bark is demulcent, astringent, aphrodisiac, anodyne, emollient and styptic. Leaves are considered to be antiseptic and emollient.

Uses : Bark is given in cases of diarrhoea and dysentery. Oil from seeds is recommended tor rheumatism.

Litsea stocksii (Meissn.) Hook f.

Mal : Varicheera

Distribution : West coast tropical evergreen foresrs.

Description : A small tree. Leaves simple, subopposite or alternate, elliptic-oblong, obtuse or subacute, 10-20 x 5-7 cm. Flowers small, in umbellules arranged in racemes. axillary or from the axils of fallen leaves. Fruit ellipsoid, 1.2 cm long, dark purple, supported by the cup shaped perianth lobes.

Uses : A cold infusion of leaf is given to remove irritation of bladder and urethra. Oil from seeds is used as an application to sprains, bruises and itch.

Neolitsea cassia (Linn.) Kosterm.

Syn. *N. zeylanica* (Nees) Merr.

Litsea zeylanica Nees

Mal : Venkana

Distribution : Southern hill-top tropical evergreen and West coast tropical evergreen forests, above 500 m elevations.

Soil requirements : Clay loam soils poorly drained, very slightly acidic with medium organic carbon content.

Description : A small to medium sized tree; bark smooth, grey. Leaves simple, alternate or subopposite, usually crowded towards the ends of branchlets, elliptic or oblong-lanceolate, acumiriate, 3-ribbed, 5-15 x 3-6 cm. Flowers small, yellowish in 3-7 flowered umbellules, arranged in axillary and extra-axillary clusters. Fruit an oblong berry, 1.2 vm long, dark purple, subtended by the disc like pcrianth.

Uses : Roots are used for poulticing eruptions on fingers.

Persea macrantha (Nees) Kosterm.

Syn. *Machilus macrantha* Nees

Mal : Uravu, Kulamavu

Distribution : Southetn hill-top tropical evergreen, West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Variety of soils, favours clay loam soils poorly drained; strongly acidic and high in organic carbon.

Description : A large tree; bark pale brown, rough. Leaves simple, alternate, usually crowded at the tip of branchlets, oblong or spathulate, 7.5-17 x 2.5-6.5 cm. Flowers small, yellow, in terminal panicles. Fruit globose, black, 1.2-2 cm in diameter.

Properties : Bark is used to treat tuberculosis, asthma and rheumatism. Leaves are applied to ulcers.

Thymelaeaceae

Gnidia glauca (Fres.) Gilg

Syn. *Lasiosiphon* (Graham) Dcne.

Mal : Nanchu, Nanku

Distribution : Southern hill-top tropical evergreen and Southern montane wet temperate forests.

Soil requirements : Loose Clay loam soils with impeded drainage and permeability. strongly acidic .

Description : A large shrub to a small tree; bark grey. smooth. Leaves simple, alternate, crowded at the tip of branchlets, lanceolate-oblong, acute, glabrous or silky pubescent beneath, 5-7 x 2-2.5 cm. Flowers yellow, in dense terminal heads, surrounded by the silky-villous bracts. Fruit ellipsoid-oblong, about 1 cm long, enclosed by the perianth.

Properties : Plant is a vesicant.

Uses : Leaves are applied to swellings and contusions.

Loranthaceae

Dendrophthoe falcata(Linn. f.) Etting.

Syn. *Loranthus longifforus* Desv.

Mal : Ithil, Valiaithikkanni

San : Vrikshadani

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests. Frequent in teak plantations.

Description : A large woody epiphytic shrub with haustorial roots, Leaves simple, opposite or alternate, elliptic to orbicular-cordate, coriaceous, variable in size. Flowers deep pink or pale yellow in axillary and extra-axillary recemes. Fruit an oblong berry, about 1 cm long, seed embeded in a sticky mucilage.

Properties : Bark is astringent and narcotic. Tribals of Bastar believe that this epiphyte is valuable for treating impotency. if the host plant is *Tamarindus indicus* (Jain, 1965).

Uses : Bark is used to treat menstrual troubles, tuberculosis and asthma.

Viscum nepalense Spreng,

Syn. *V. articulatum* auct. non Burm. f.

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Description : A much branched leafless epiphyte with haustorial roots, branchlets flattended, jointed at the nodes. Flowers small, in 3-flowered sessile spikes. Fruit a subglobose berry, yellow, 0.5 cm long.

Properties : Plant is cooling, alexipharmic, aphrodisiac and alterative.

Uses : A preparation of the plant is given in fever, diseases of the blood, ulcers, epilepsy and biliousness.

Santalaceae

Santalum album Linn.

Mal : Chandanam

San : Chandana

Distribution : Confined to the Southern dry mixed deciduous forests at Marayur.

Soil requirements : Loamy sand slightly acidic with good drainage and fair permeability, low in potash, phosphate and organic

Description : A small tree with slender drooping branches; bark dark brown to black, rough, wood scented. Leaves simple, opposite, elliptic-ovate, or oblong, subacute 3.5-6.5 x 2-3 cm. Flowers brownish purple in terminal and axillary paniculate

cymes. Fruit a globose drupe, purplish black, about 1 cm in diameter.

Properties : Wood is bitter, cooling, exhilarating, alexiteric. antipyretic, aphrodisiac and diaphoretic. A triterpenoid extracted from the bark has been found to inhibit growth in some forest insects (Sankaranarayana *et al.,* 1980).

Uses : Wood is made into a paste and applied to headache and skin diseases. Oil from heartwood is used in the symptomatic treatment of dysuria, gonorrhoeal urethritis and cystitis.

Euphorbiaceae

Acalypha fruticosa Forsk.

Distribution : Southern dry mixed deciduous forests and scrub jungles.

Soil requirements : Variety of soils, sandy loam to loam, medium to slightly acidic with good drainage.

Description : A much branched shrub, with waxy glands. Leaves simple, alternate, ovate, obtusely acuminate, cuneate at base, crenate, glandular beneath, up to 7.5 x 3.5 cm. Flowers small, in slender spikes, female at the base of the spikes. Fruit a 3-lobed pubescent capsule with yellow glands in between the lobes.

Properties : Leaves are stomachic, alterative and attenuant.

Uses : Leaves are used in the treatment *of* dyspepsia.

Acalypha indica Linn.

Mal : Kuppameni

San : Harithamanjari

Distribution : Frequent in forest plantations at low elevations.

Soil requirements : Variety of soils; favours sandy loam soils with good drainage, medium acidic, medium in organic carbon.

Description : An annual herb. Leaves simple, alternate, ovate or rhombic-ovate, acute, crenate, up to 7.5 x 4 cm, long petioled. Flowers small, in axillary spikes. Fruit a small 3-lobed capsule; seeds brown, smooth.

Properties : Plant is anthelmintic. emetic and expectorant. Leaf is laxative. Root is cathartic and purgative.

Uses : Plant is used as a substitute for senega. It is used to treat bronchitis, pneumonia and asthma. Leaves are applied to cure scabies and are recommended in cases of snake bites.

Acalypha racemosa Wall. ex Baill.

Syn. *A. paniculata* Miq.

Mal : Valia Kuppameni

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Description : An undershrub. Leaves simple, alternate, ovate, acuminate, rounded or subcordate at base, crenate, sparsely hairy on both surfaces, 5-11 x 2.5-6.5 cm. Flowers small, greenish; male in axillary spikes; female in terminal panicles.

Properties : The properties and uses of the plant are the same as that of *Acalypha indica.*

Antidesma bunius (Linn.) Spreng.

Mal : Aryaporiyan

Distribution : West coast evergreen and West coast tropical evergreen forests.

Soil reyuiremsnts : Clay loam soils with plenty of moisture, strongly acidic. high in organic carbon.

Description : A small tree; bark greyish brown, smooth. Leaves simple alternate, elliptic-oblong or obovate. acute or acuminate, 10-15 x 3.5-5 cm. Flowers small, yellowish; male in spikes; female in few flowered racemes. Fruit dark red, ovoid, about 1 cm in diameter.

Properties : Bark is poisonous and to contain an alkaloid (Burkill, 1935).

Uses : Young leaves are used in the treatment of syphilitic cachexia.

Antidesma ghaesembilla Gaertn.

Distribution : Southern moist mixed deciduous forests at altitudes below 400 m.

Soil requirements : Sandy loam soii with good drainage and permeability, loose, medium acidic.

Description : A small tree; bark greyish brown, branchlets pubescent. Leaves simple, alternate, orbicular-oblong or broadly elliptic pubescent below. 5-10x 3-6 cm. Flowers small, in axillary panicled spikes. Flowers subglobose. reddish-purple. 0.5 cm in diameter.

Properties : Bark is astringent. It has got tonic properties also. Wood is reported to be an emmenagogue.

Aporusa lindleyana (Wight) Baill.

Mal : Ponvetti, Vetti

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Variety of soils, clay loam to loam, loose, strongly acidic with plenty of moisture.

Description : A small to medium sized tree; bark brown with shallow vertical grooves. Leaves simple, alternate. elliptic-oblong, acuminate. acute or rounded at base, shining. Flowers yellowish; male in dense 2.5-3.5 cm long spikes; female in very short, often clustered racemes, Fruit globose. about 1 cm in diameter.

Uses : A decoction of the root is given against jaundice. fever and headache, seminal loss and insanity.

Baliospermun montanum (Willd.) Muell. -Arg.

Syn. *B. axillare* Bl.

Mal : Nagadanthi

San : Danthi, Nikumbha

Distribution : West coast semi-evergreen and Moist teak bearing forests

Description : An undershrub, reaches to a height of 1-2 m. Leaves simple. alternate, the upper small, lanceolate, the lower, broadly ovate, often palmately lobed, sinuate-toothed, 12-30 cm long and as broad as long, 2 glands present at the base of the lamina. Fiowers small in axillary racemes or panicles. Fruit a capsule, obovoid, pubescent, about 1 cm long; seeds ellipsoid. smooth, caruncled. (Plate XVII, Fig. 3)

Properties : Seeds are purgative, stimulant and rubifacient. Oil from seeds is hydragogue and cathartic. Root is purgative, anthelmintic, diuretic and

Uses : A decoction of leaves gives relief in asthma. Oil from seeds is applied externally in rheumatism. Root is used to treat skin diseases, abdominal complaints, piles, enlarged

spleen, itching, inflammations, anemia. leucoderma, jaundice, dropsy and anasarca.

Bischofia javanica Bl.

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Sandy loam soils, medium acidic, medium in potash and phosphate and high in organic carbon.

Description : A large tree; bark dark brown, exudes a red exudation when cut. Leaves alternate, trifoliolate; leaflets ovate or ovate-oblong, acuminate, crenate, 7-15 x 3.5-7.5 cm. Flowers small in axillary paniculate racemes. Fruit a globose berry. brown, 1-2 cm in diameter; 3-6 seeded.

Properties : Leaves are rich in Vitamin C.

Uses : Leaf juice is considered to cure sores.

Breynia vitis-idaea (Burm. f.) C. E. C. Fischer

Syn. *B. rhamnoides* (Retz.) Muell. - Arg.

Mal : Kattuneeruri

Distribution : Southern moist deciduous and West coast semievergreen forests.

Description : A large shrub; branchlets angular. Leaves simple, alternate, distichous, elliptic, obtuse or subacute, 1.5-3.5 x 1-2.5 cm. Flowers globose, yellowish red, 0.5 cm in diameter.

Uses : Dried leaves are smoked like tobacco to cure swelled uvula and tonsils.

Bridelia scadens Willd.

Syn. *B. stipularis* sensu Hook. f. non Bl.

Mal : Cherultolpanachi, Kanjikottam

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Soil requirements : Silty loam soils, well drained, slightly acidic with low potash and organic carbon and medium phosphate contents.

Description : A large climbing Shrub; branchlets often with long deflexed spines. Leaves simple, alternate, elliptic, obtuse, rounded or cordate at base, pubescent beneath, 2.5-10 x 1.2-5 cm. Flowers small. greenish yellow, in small dense axillary clusters or spikes. Fruit a drupe. ellipsoid or oblong, bluish black, 1.5 cm long.

Uses : Bark is used to prepare a mouth wash Leaves and stem cure eczema. Root and stem are recommended in the treatment of asthma, cough and internal sores.

Bridelia squamosa (Lamk.) Grah.

Syn. *B. retusa* Spreng.

Mal : Mullan-kaini, Mulluvenga

Distribution : Southern moist mixed deciduous. Moist teak bearing and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils, also capable of surviving on dry shallow soils. It can withstand drought.

Description : A medium sized tree; bark grey or brown, covered with conical thorns towards the base when young. Leaves simple, alter-

nate, ovate-elliptic or oblong, sub-acute, obtuse or rounded at base, finely pubescent below. Flowers small, yellow in 5-10 cm long, axillary spikes. Fruit a drupe. globose, purplish biack. subtended by the calyx, about 0.5 cm in diameter.

Properties : Roots and bark are astringent.

Uses : Bark with gingily oil is used as liniment in rheumatism.

Cleistanthus collinus (Roxb.) Benth.

Mal : Oduku

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Silty loam soils with good drainage and permeability, slightly acidic, low in potash and organic carbon and medium in phosphate.

Description : A small to medium sized deciduous tree; bark dark brown, flaking off in rounded flakes. Leaves simple, alternate, elliptic-obovate or orbicular, retuse at apex, 5-12 x 2.5-7 5 cm. Flowers small. yellowish green, in axillary cluster's. Fruit obovoid. nearly black when dry, 2-2.5 cm in diameter.

Properties : Plant is astringent and extremely poisonous. Extract of leaves, roots and fruits are violent gastro-intestinal irritant.

Uses : Bark is applied externally in cases of cutaneous diseases.

Croton caudatus Geisel

Distribution : West coast semi-evergreen forests.

Soil requirements : Clay loam, medium acidic soils, medium potash and phosphate and high in organic carbon.

Description : A scandent shrub. Leaves simple, alternate, ovate, or orbicular-cordate, acute or acuminate, crenate, stellately tomentose beneath, 5-15 x 3-8 cm. Flowers fascicled in slender terminal racemes. Fruit oblong with *6* slender ridges, scabrid pubescent, 2-2.5 cm long.

Uses : Leaves are applied as a poultice to sprain. In Lakhimpur Uttar pradesh, the young leaf buds with the leaves of *Caesalpinia sappan* are used to treat liver diseases.

Croton roxburghii Balak.

Syn. C. *oblongifolius* Roxb.

Distribution : Southern dry mixed deciduous forest and scrub jungles.

Soil requirements : Variety of soils, sandy loam to loam, strongly acidic, slightly alkaline with organic carbon contents.

Description : A small to medium sized tree; bark grey or brownish. Leaves simple. alternate, oblong-lanceolate, acute, crenate, scaly when young, becomes glabrous when old. Flowers yellowish green, solitary or fascicled on long racemes, the male flowers in the upper part of the race and female flowers on the lower part. Fruit subglobose, covered with small orbicular scales, about 1.2 cm in diameter.

Properties : Bark, root, fruits and seeds are purgative, Bark and roots are alterative also.

Uses : Bark is useful in cases of sprains and diseases of the liver.

Croton reticulatus Heyne

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Clay loam soils, medium acidic, low in potash and phosphate and high in organic carbon.

Description : A small tree; branchlets covered with ferruginous scales. Leaves simple, elliptic, lanceolate, acute or acuminate, base acute or rounded, furnished with a pair of stalked glands. Flowers in terminal racemes, male towards the upper part of the raceme and female towards the base. Fruit ovoid-oblong, slightly 3-lobed, apiculate, covered with reddish brown stellate hairs and scales, about 1 cm in diameter.

Properties : Bark is stomachic.

Drypetes roxburghii (Wall.) Hursuwa

Syn. *Putranjiva roxburghii* Wall.

Mal : Poothilanji

Distribution : Reported to occur in the west coast tropical evergreen forests in North Kerala.

Description : A small to medium sized tree with pendent branches; bark dark grey with horizontal lenticels. Leaves simple, alternate, elliptic -oblong. acute, distantly serrulate, 6.5-10 x 2-4 cm. Flowers small, yellow, in axillary clusters. Fruit ellipsoid, white, tomentose, 1-2 cm long.

Properties : Plant is fragrant, cooling, pungent, aphrodisiac, laxative and diuretic.

Uses : Plant is used to treat biliousness, thirst, burning sensations, erysipelas and elephantiasis. A decoction of leaves and fruits is given against cold and fevers.

Emblica officinalis Gaertn.

Syn. *Phyllanthus emblica* Linn.

Mal : Nelli

San : Amalaki, Dhathri

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and Dry teak bearing forests.

Soil requirements : Variety of soils, loose, medium acidic with low potash and medium phosphate and organic carbon contents.

Description : A small to medium sized tree; bark grey, flaking off in irregular, thin flakes. Leaves simple, linear-oblong, 1.3 cm long, closely set and slightly overlapping. Flowers small, in axillary clusters. Fruit globose, 1-2.5 cm in diameter, yellowish.

Properties : Fruit is refrigerant, diuretic, laxative, acrid, alexiteric, carminative, alterative, antipyretic. It is an ingredient of 'Chyavanaprasa'. Fruit helps the abundant growth of hair. Flowers are cooling and aperient. Root and bark are astringent.

Uses : Fruits are used in the treatment of a number of diseases such as burning sensations, vomiting, biliousness, urinary discharges, diabetes, leprosy, constipation, Inflammations, erysipelas, piles, anaemia, strangury. anuria, ophthalmia and incipient blindness. Fermented liquor prepared from the fruit is used as a remedy in jaundice, dyspepsia and cough. Dried fruit is used in the treatment of haemorrhage, diarrhoea, dysentery, anaemia, janudice and dyspepsia. Taking bath daily in water boiled with a small quantity of the fruit will prevent the signs of old age. It is used in 'Kayakalpa Cikilsa' arid 'Dhara'. Seeds are used

in the treatment of asthma. bronchitis and biliousness.

Euphorbia antiquorum Linn.

Mal : Chathurakkalli

San : Vajrakantaka

Distribution : Laterite thorn forests and in Scrub jungles.

Soil requirements : Sandy slightly acidic soils with good drainage and permeability, high in potash, low in phosphate and organic carbon.

Description : A large spinescent leafless shrub with triangular succulent stem and milky latex. Leaves small, caducous. Flowers yellow, in 3-flowered cymes.

Properties : Plant is digestive and purgative. Latex is irritant purgative and expectorant. It kills maggots in the wounds. Root bark is purgalive.

Uses : A decoction of the stem is recommended in cases of gout, Latex is used aginst rheumatism, nervine diseases, toothache, dropsy, earache and cutaneous diseases.

Euphorbia hirta Linn.

Mal : Nilapala

San : Rakrabinduchada

Distribution : Southern dry mixed deciduous forests and scrub jungles. Also seen in forest plantations.

Soil requirements : Siltv loam soils, slightly acidic with medium potash and high phosphate and organic carbon contents.

Description : A slender scandent annual hispid herb with milky latex. Leaves simple alternate, ovate-lanceolate, unequal at base, serrate, 2.5-3.5 cm long. Flowers small, in axillary capitate cymes.

Uses : Plant is used in the treatment of bowel complaints of children, dysentery and colic. Decoction of the plant is given against bronchial afflictions and asthma. In Trinidad the plant is used to treat fever, influenza, measles and hypertensions (Wesley Wong, 1976).

Euphorbia laeta Heyne ex Roth

Syn. *E. rothiana* Spreng.

Distribution : Southern hill-top tropical evergreen and Southern montane wet scrub forests.

Soil requirements : Loamy soils well drained strongly acidic.

Description : A tall herb with milky latex. Leaves simple, linear-lanceolate or oblanceolate, 4.5-9 cm long, the floral leaves broadly ovate-cordate. Flowers small, greenish, terminal and in the axils of upper leaves. Fruit a capsule, about 0.5 cm in diameter.

Properties : Juice of the Plant is acrid and irritant.

Euphorbia thymifolia Linn.

Mal : Chithrappala

Distribution : Frequent in forest plantations.

Soil requirements : Loarny sand, slightly acidic soils, medium in potash low in phosphate and high in organic carbon.

Description : An annual prostate hispid pubescent herb. Leaves simple, opposite, very small, obliquely oblong, rounded at apex, crenulate. Flowers very smali, axillary, solitary or 2-3 together. Fruit obtusely keeled, pubescent. very small.

Properties : Dried leaves and seeds are aromatic, astringent, stimulant and laxative.

Uses : Plant juice is a remedy for ringworm and other skin diseases. Root is used in the treatment of amenorrhoea.

Euphorbia tirucalli Linn.

Mal : Thirukkalli

Distribution : Southern dry mixed deciduous forests.

Soil requirements : Loose loamy sand, slightly acidic soils, medium in potash and organic carbon and low in phosphate.

Description : A small leafless tree with milky latex; bark brown or greenish brown; branches green, cylindrical. Leaves small, caducous. Flowers small, greenish, clustered in the fork of branches.

Properties : Latex is vesicant, rubifacient, purgative and counter irritant.

Uses : Latex is applied for warts and rheumatism and used in the treatment of neuralgia, toothache, cough and asthma.

Glochidion zeylanicum (Gaertn.) Juss.

Mal : Neervetti

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Description : A small tree. Leaves simple, alternate, ovate-oblong, obtuse, rounded at base, glabrous, 5-12.5 x 2.5-5 cm. Flowers small in axillary clusters, yellow. Fruit a capsule, globose, about 2 cm in diameter.

Properties : Bark is stomachic. Fruits are cooling and restorative.

Uses : Pounded leaves are applied to itches.

Hoinonoia riparia lour.

Mal : Kaloorvanchi, Puzhavanchi

San. : Asmabheda

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests; mostly seen along the banks of streams.

Soil requirements : Variety of soils with plenty of moisture, slightly acidic.

Description : A large shrub to a small tree. Leaves simple. alternate, linear, serrulate towards the tip, glandular scaly beneath, 7.5-15 x 0.8-2 cm. Flowers dioecious, small, sessile, in axillary spikes. Fruit globose, 3 rnm in diameter, pubescent.

Properties : Root is laxative and diuretic.

Uses : Decoction of the root is used in the treatment of piles, stone in the bladder, gonorrhoea and syphilis. Root is used against ulcers and vesical calculi.

Macaranga peltata (Roxb.) Muell.-Arg.

Mal : Vatta

Distribution : Mostly seen in Southern secondary moist mixed deciduous forests.

Soil requirements : Sandy loam soils usually in moist areas, slightly acidic, high in organic carbon.

Description : A small to medium sized tree; bark dark grey, smooth exudes a red gurnrny exudate when cut. Leaves simple, alternate, peltate. orbicular, 12-25 cm in either way. long petioled. Flowers small, yellowish, in axillary and extra axillary

panicles. Fruit a capsule, globose, about 0.5 cm in diameter, glandular.

Uses : Gum is applied to veneral sores.

Mallotus philippensis (Lamk.) Muell.-Arg.

Mal : Chenkolli, Kunkumapoovumaram, Kurangumanjal

Distribution : West coast semi-evergreen, West coast tropical evergreen and Southern moist mixed deciduous forests.

Soil requirements : Loamy soils, well drained, medium acidic with low potash and phosphate and high organic carbon contents.

Description : A small tree; bark grey or pale brown. Leaves simple, alternate and opposite, ovate-lanceolate, acute or acuminate, 3-ribbed at the base, 7-16 x 4-7 cm. Flowers yellow, in terminal spikes. Fruit 3 lobed, about 1 cm in diameter, covered with bright red powdery substances.

Properties : Leaf is bitter, cooling, purgative, vulnerary, detergent, maturant, carminative and alexiteric. It improves appetite but cause flatulence; heals ulcers and wounds. Glands and hairs on the fruits are bitter, cathartic, styptic and anthelmintic especially against tape worm.

Uses : Leaves are used in the treatment of stone in the bladder, bronchitis and enlargement of spleen.

Phyllanthus fraternus Webst.

Syn. *P. niruri* auct. non Linn.

Mal : Kizhanelli

San : Tharnalakee

Distribution : Seen in forest plantations.

Soil requirements : Variety of soils favours sandy loam slightly acidic low in potash and phosphate and medium in organic carbon.

Description : An annual herb with slender spreading branchlets. Leaves simple, distichous, often overlapping, elliptic-oblong, small. Flowers small, axillary. Fruits depressed globose, about 2 mm in diameter. (Plate XVII, Fig. 4)

Properties : Plant is bitter, astringent, cooling, alleviative of thirst, cough, haemorrhage, anemia and pectoral lesion.

Uses : The whole plant, particularly the leaves, is very beneficial, in jaundice. It is used as a diuretic in dropsical afflictions, gonorrhoea and other troubles of the genito-urinary tract. An infusion of young shoots is given in dysentery. Latex is applied to sores. Powdered leaves and roots are appiied as a poultice *to* lessen oedematous swellings and ulcers.

Sauropus quadrangularis (Willd.) Muell .-Arg.

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Description : A shrub with slender angular branchlets. Leaves simple, alternate, elliptic-oblong or obovate, 1-2 x 0.8-1.2 cm. Flowers small, axillary. Fruit depressed globose. about 1 cm in diameter.

Uses : Dried leaves are smoked in tonsillitis.

Securinega leucopyrus (Willd.) Muell.-Arg.

Syn. *fluggea leucopyrus* Willd.

Mal :

Distribution : Southern dry mixed deciduous and Laterite thorn forests.

Description : A large shrub with angular branchlets usually ending in spines. Leaves simple, alternate obovate or obcordate 1.5-2.5 cm long. Flowers yellowish, in axillary clusters. Fruit globose, white, about 4 mm in diameter.

Uses : Leaves are used to destroy worms in sores.

Securinega virosa (Roxb. ex Willd.) Baill.

Mal : Karimulli, Perumklavu

Distribution : Southern dry mixed deciduous forests and also in scrub jungles.

Soil requirements : Variety of soils usually in dry areas.

Description : An unarmed shrub with angular branchlets. Leaves simple, alternare, elliptic or obovate, acute, 2.5-7 cm long. Flowers yellowsih. in axillary clusters. Fruit globose, white, about 0.5 cm in diameter.

Properties : Plant is cooling and aphrodisiac. It is also used as a tonic.

Uses : Plant is used in the treatment of strangury, biliousness and diseases of blood. Leaves are used to destroy worms in sores. Roots are used against gonorrhoea.

Tragia involucrata Linn.

Syn. *T. hispida* Willd.

Mal : Choriyanam, Kodithuva

San : Kochura

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils, mostly in dry areas, slightly acidic.

Description : A twining hispid herb with stinging hairs. Leaves simple, alternate, oblong-lanceolate to broadly ovate, acuminate. serrate. 2.5-10 x 2-5 cm. Flowers in terminal and leaf opposed racemes. Fruit 3-lobed, hispid, about 8 mm in diameter.

Properties : Root is diaphoretic and alterative.

Uses : Root is given against fever and body pains. An infusion is given in ardent fever and itching of the skin. It forms the basis of an external application in leprosy and it aids in the extraction of guinea worm.

Trewia nudiflora Linn.

Mal : Malankumbil, Pambarakumbil

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic with high potash and phosphate contents.

Description : A medium sized tree; bark smooth grey, flaking off in thin rounded scales. Leaves simple. opposite, ovate, acuminate, truncate or cordate at base, long petioled. Male flowers in long slender racemes. Female flowers solitary or in few flowered racemes. Fruit depressed globose, 2-3.5 cm in diameter.

Properties: Plant is alexiteric. It improves taste and remove biliousness.

Uses : Decoction of the root is given aginst flatulence and applied

locally in gout and rheumatic afflictions.

Ulmaceae

Aphananthe cuspidata (Bl.) Planch.

Syn. *Gironniera cuspidata* (Bl.) Planch. ex Kurz

G. reticulata Thw.

Mal : Bhuthiyunarthi

Distribution : West coast tropical evergreen forests,

Description : A large buttressed tree; bark pale brown, flaking off in small strips with the lower end detached and the upper end attached. Leaves simple. alternate, oblong-ovate, acuminate, truncate or acuminate at base. Male flowers in paniculate cymes. Female flowers solitary, axillary. Fruits yellow, ovoid, shortly beaked, 8 mm long.

Properties: The plant is used as a blood purifier.

Celtis timorensis Spanoghe

Syn. C. *cinnamomea* Lindl. ex Planch.

Mal : Poochakkurumaram

Distribution : West coast tropical evergreen forests.

Soil requirements : Loamy sand, slightly acidic soils, loose, medium in potash, low in phosphate and high in organic carbon.

Description : A small to medium sized tree; bark pale green, smooth. Leaves simple, alternate, obliquely-ovate, long acuminate, entire or serrate. 3 ribbed, 7-15 x 2.4-5 cm. Flowers greenish, small, male in short racemose cymes; female in slender cymes. Fruit globose, acuminate.

Properties : Wood decoction is used as a blood purifier.

Uses : Wood is used in medicines for headache and as a fumigator *to* drive off mosquitoes.

Holoptelea integrifolia (Roxb.) Planch.

Mal : Aval

San : Poothi-Karanjah, Udakirya

Distribution : West coast semi-evergreen and occasionally in Moist teak bearing forests

Soil requirements : Loamy sand, slightly acidic soils, loose with good drainage, low in phosphate, medium in potash and high in organic carbon

Description : A medium to large tree; bark whitish grey, flaking off in irregular flakes. Leaves simple, alternate, elliptic or broadly oblong, acuminate, rounded or cordate at base. 7-12 *x* 2.5-5 cm. Flowers greenish purple in corymbose fascicles. Fruit samaroid, nearly orbicular, about 2.5 cm in diameter.

Uses : Juice of boiled bark is applied to rheumatic swellings.

Trema orientalis (Linn) Bl.

Syn. *Celtis orientalis* Linn.

Mal : Amathali

Distribution : Mostly seen in secondary forests.

Soil requirements : The soils on which it grows vary widely in texture and structure, clay loam soils with good water supply is most suitable. Alluvial soils along the streams also support good growth.

Description : A small tree: bark greyish. smooth. Leaves simple, alternate, oblong, lanceolate. unequal at base, crenate. white or grey pubescent beneath, 7-15 x 2.5-6

Flowers small, greenish, in axillary cymes. Fruit a drupe, black, about 0.5 cm in diameter.

Uses : Plant is used in the treatment of epilepsy.

Moraceae

Antiaris toxicaria (Pers.) Lesch.

Mal : Aranjili, Mara-uri

San : Valkala-vriksha

Distribution : West coast tropical evergreen and Wast coast semi-evergreen forests.

Description : A very large tree, often buttressed, bark thick; grey. Leaves simple, alternate bifarious, elliptic-oblong, acuminate, rounded or cordate at base, entire or serrulate. scabrous on both sides, 10-12 x 5-7 cm. Male flowers small, fascicled on axillary flat receptacles. Female flowers solitary, axillary. Fruit globose, red, velvety, 1.5-2 cm in diameter; 1-seeded. (Plate XIX, Fig. 2)

Properties : Seeds are febrifugal.

Uses : The sap 'antiarin'. is used as an arrow poison. Seeds are given in cases of dysentery.

Artocarpus gomezianus Wall. ex Trecul ssp. **zeylanicus** Jarrett

Syn. *A. lakoocha* auct. non Roxb.

Mal : Kadaplavu. Theettiplavu

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Variety of soils; tavours medium acidic with medium potash and phosphate and high organic carbon contents.

Description : A medium sized tree; bark greyish brown or black, cexudes milky latex when cut. Leaves simple, alternate, oblong or ovate, cuspidate, base truncate or subcordate, grey tomentose beneath. Flowers yellow, in axillary, globose heads. Fruits yellow, irregularly globose, 5-8 cm in diameter; seeds few, flat.

Properties : Unripe fruit causes constipation, impotency, eye troubles and fever. Ripe fruit also has the properties, but it is tonic to the liver. Seeds are purgative.

Uses : Bark in the form of powder is applied to small pimples and cracky skin.

Artocarpus heterophyllus Lamk.

Syn. *A. integrifolia* Linn.

Mal : Plavu

San : Panasa

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests; widely cultivated.

Soil requirements : Variety of soils, favours sandy clay loam, slightly acidic with low potash, medium phosphate and high organic carbon contents.

Description : Medium to large tree; bark blackish, mottled with black and green, rough with warty excrescences Leaves simple, alternate, ovate-,oblong. acute, 10-25 x 5-12 cm. Male flowers on cylindrical receptacles. Female flowers on ovoid-oblong receptacles. Fruit a large sorosis. up to 50 cm long. containing a large number 'of ovoid smooth seeds.

Properties : Ripe fruit is said to be antidote to all kinds of animal poisons. It is laxative, oleagenous and aphrodisiac. Unripe fruit is astringent and carminative.

Uses : Juice of the plant is applied to glandular swellings and abscesses to promote suppuration. Extract of wood is useful for the relaxation of ulva and for the inflammation of throat and tonsils. Leaves are used to treat skin diseases. Roots are given in case of diarrhoea.

Artocarpus hirsutus Lamk.

Mal : Anjili, Ayani

Distribution : West coast tropical evergreen, West coast semievergreen and Southern secondary moist mixed deciduous forests.

Soil requirements : Variety of soils, well drained, medium potash, low phosphate and high organic carbon.

Description : A large tree; bark grey or greyish brown. Leaves simple, alternate. deeply lobed in' young tree, entire in mature trees, broadly ovate, acute, base narrowed, pubescent on the petioles and on the veins beneath. Flowers yellowish green, small, male in axillary cylindrical peduncles, female in ovoid heads. Fruits yellow, ovoid or globose, 5-7.5 cm in diameter, covered with hispid spines.

Uses : Dried leaves along with other medicines are applied over bubos and swelled testicles.

Ficus amplissima J E. Sm.

Syn. *F. tsiela* Roxb.

Mal : Koyali

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil *requirements* : Variety of soils.

Description : A large tree with a spreading crown; bark greenish grey, smooth, exudes milky latex when cut. Leaves simple, alternate, ovate-oblong, shortly acuminate, rounded at base, 4.5-10 x 2.5-5 cm. Fruit globose, yellowish white, in axillary clusters. about 0.5 cm in diameter.

Uses : Bark is used in the treatment of colic. Root bark is used to treat chronic cough and other pulmonary infections. Latex of the root and fruit is an effective remedy in case of eye diseases.

Ficus arnottiana (Miq.) Miq.

Mal : Kallarayal

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils, loam, sandy loam, medium acidic and medium in organic carbon.

Description : A small to medium sized tree; bark smooth, grey, exudes a milky latex when cut. Leaves simple, alternate. broadly ovate, caudate-acurninate, cordate at base, entire or slightly undulate, 7-18 x 5-10 cm. Fruits depressed globose, purple, in sessile or shortly peduncled clusters *of* 2-5, about 0.5cm in diameter. (Plate XVlll, Fig. 1)

Uses : Leaves and bark are used against skin diseases.

Ficus benghalensis Linn.

Mal : Peral

San : Nyagrodha

Distribution : Often planted as avenue trees. Sometimes seen in secondary forests.

Soil requirements : Variety *of* soils; favours sandy loam soils with

good drainage, slightly acidic, low in potash, medium in phosphate and organic carbon.

Description : A large tree with numerous aerial roots; bark greyish white., smooth, exudes a milky latex when cut Leaves simple, alternate. ovate or elliptic obtuse, subcordate or rounded at base, pubescent when young, 10-20 x 5-10 cm. Fruit bright red, in axillary pairs, about 1.3 cm in diameter. (Plate XVIII, Fig. 2)

Properties : The bark is astringent to the bowels, cooling in action, not easily digestible and improves comptexion (Mooss, 1977). Milky juice is aphrodisiac. tonic, vulnerary and maturant. Seeds are cooling. Aerial root is styptic and aphrodisiac.

Uses : Bark is used in the treatment of ulcers, erysipelas, burning sensation and vaginal disorders (Mooss, 1977). Milky juice is used in the treatment of piles, and gonorrhoea. It is applied externally for pains, rheumatism and lumbago. The slender twigs of the tree are recommended for use as tooth brush and their continued use will strengthen the gums and teeth. A decoction of leaf buds in milk is beneficial in cases of haemorrhages, The tender hanging roots can be used in the same way (Mooss, 1977). Leaves are applied as a poultice *to* abscesses. Aerial roots are used in the treatment of gonorrhoea, syphilis, biliousness, dysentery and inflammation of the liver. Tender ends of the aerial roots are an effective remedy for obstinate vomiting.

Ficus dalhousiae Miq.

Mal : Kallal

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Sandy loam, soils with impeded drainage, slightly acidic, high in potash and phosphate.

Description : A small trees bark grey, smooth. Leaves simple, alternate, ovate-elliptic- or ovate, acute or acuminate, cordate at base, softly pubescent when young, 14-25 x 10-17 cm, petiole up to 10 cm long. Fruit in sessile axillary pairs,yellowish when ripe, about 2 cm in diameter. (Plate XVIII, Fig. 3)

Uses : Leaves and bark are recommended for liver complaints and skin diseases Fruit is used in the treatment of heart diseases.

Ficus drupacea Thumb. var. **pubescens** (Roth) Corner

Syn. *F. mysorensis* Heyne

Mal : Kallal

Distribution : Occasional in the Southern moist mixed deciduous forests.

Description : A very large tree with few aerial roots. Leaves simple, alternate ovate or ovate-elliptic, shortly acuminate, rounded or emarginate at base. grey tomentose when young, 10-20 x 3.4-7.5 cm. Fruits in axillary pairs, oblong or subovate, 2.3 cm long, orange-red when ripe.

Uses : Used in native medicines (Ramarao, 1914).

Ficus exasperata Vahl

Syn. *F. asperrima* Roxb.

Mal : Tharakam

Distribution : Mostly seen in the Southern secondary most mixed deciduous forests.

Description : A small to medium sized tree; bark pale grey, smooth. Leaves simple, alternate, ovate or oblong-lanceolate, obtuse or acuminate, rounded at base, rarely 3-5 lobed, scabrid and hispid on both surfaces 8-15 X 2.5-6 cm. Fruits peduncled, in axillary pairs, globose, scabrous hispid, yellow, 1.3-2 cm in diameter.

Uses : Bark arid juice of the plant are recommended in cases of enlargement of liver and spleen. The root is used against the burging sensation of bowels (Van Reede, 1679)

Ficus hispida Linn. f.

Mal : Erumanakku, Parakam, Peyathi

Distribution : Mostly seen in the secondary forests.

Soil requirements : Variety of soils. in the slopes. slightly acidic with low potash, medium phosphate and high organic carbon contents.

Description : A small tree; bark grey or brown. rough. exudes milky latex when cut. Twigs with hollow internodes. Leaves simple. opposite, elliptic or oblong, shortly acuminate, rounded or subcordate at base, entire or serrate, scabrous on the upper surface, 10-30x 5-10 cm Figs ovoid or subpyriform, hispid, yellowish when ripe, clustered on mature stem or on elongated branches arising from maturestem (Plate XIX, Fig. 1)

Properties : All parts of the plant are cooling, acrid, astringent to the bowel and antidysenteric. Powdered bark is antiperiodic and acts as a tonic. Fruit, seeds and bark are purgative and emetic.

Uses : The plant is useful in the treatment of ulcers, biliousness, psoriasis, anaemia, piles. jaundice and haemorrhage of the nose and mouth.

Ficus microcarpa Linn. f.

Syn. *F. retusa* Linn.

Mal : Kallithi.

San : Plaksha

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils ranging from shallow and dry soils on hill top slopes and alluvium along stream banks.

Description : A medium sized to large tree with numerous thin aerial roots; bark brown, fairly smooth, latex milky. Leaves simple. alternate, ovate, obtuse, shortly acuminate, narrowed at base; 5-10 x 2 5-5cm. Fruits in axillary sessile pairs, globose, greenish yellow, about 1 cm in diameter.

Properties : The plant is pungent, bitter, and aphrodisiac.

Uses : The plant: is used in the treatment of leucoderma, ulcers, leprosy, itching and biliousness. Bark is recornmended in cases of liver diseases. Powdered leaves and bark are given against rheumatic headache. Leaves and root bark are applied for wounds and bruises. In China the aerial rootlets are considered to be a remedy for toothache.

Ficus racemosa Linn.

Syn. *F. glomerata* Roxb.

Mal :

San : Sadaphala. Udumbara

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Variety of soils with adequate moisture supply, usually in alluvial, low-lying moist soils.

Description : A large tree; bark reddish grey, smooth, latex milky. Leaves simple, alternate, elliptic-lanceolate. ovate or ovate-oblong. acute, obtuse at base, 10-17 x 3.5-6.5 cm Fruits clustered on short leafless branches arising from the mature stem, reddish when ripe, about 3 cm in diameter. (Plate XVIII, Fig. 4)

Properties : All parts of the plant are cooling, vulnerary and anti-dysenteric. Bark is astringent. haemostatic, improves complexion and cleanses and heals wounds. Milky juice is aphrodisiac. Unripe . fruit acts as a tonic and styptic.

Uses : The plant is used in the treatment of biliousness and diseases of the vagina. A decoction of the bark is equally effective in menorrhagia and also in haemorrhages and diabetes (Mooss, 1977).Leaves are given against menorrhoea and haemoptysis. Galls of the leaves are given to prevent pitting in small pox. Unripe fruit is recommended for leucorrhoea. The juice of the fully ripe and fresh fruits with a little honey is effective in excessive thrist. burning sensation and haemorrhages (Mooss, 1977).

Ficus talbolti King

Mal : Ithi, Kal-ithi

Distribution : West coast tropical evergreen forests.

Soil requirements : In the slopes in sandy loam soils with good drainage slightly acidic, high in potassium and organic carbon and low in phosphate.

Description : A large tree, sometime with few aerial roots; bark greenish, smooth, exudes milky latex when cut. Leaves simple, alternate, narrowly elliptic to broadly ovate. shortly caudate-acuminate, narrowed at base. Fruits obovoid, sessile, 0.6 cm in diameter, greenish yellow.

Uses : Decoction of the bark is used in the treatment of ulcers,venereal diseases, diarrhoea and leprosy.

Ficus tinctoria Forst. f. ssp. **parasitica** (Koen. ex Willd.) Corner

Syn. *F. gibbosa* Bl.

Mal : Ithi, Kal-ithi

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Soil requirements : Sandy soils usually in the slopes, well drained.

Description : A medium sized tree; bark greyish or yellowish green, smooth. exudes a milky latex when cut. Leaves simple alternate, elliptic-ovate to lanceolate, obtuse, acute or cuspidate. cuneate or acute at base. usually one side more or less gibbous, scabrous beneath. Fruits in pairs or fascicled on the twigs, subglobose 0.5-1 cm in diameter. yellow, scabrid.

Properties : Root bark is stomachic and ient.

Uses : Leaf juice is given in burning fevers (Van Rheede, 1679). A decoction of the root is used as an aperient. It is an excellent remedy against any kind of diseases in the mouth (Van Reede, 1679).

Streblus asper Lour.

Mal: Paruva

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Moist teak bearing forests.

Description : A small tree; bark grey. irregularly ribbed. exudes a .milky latex when cut. Leaves simple, alternate. ovate or rhomboid, acute, margin irregularly toothed, 2.5-10 x 1-2.5 cm. Flowers small, greenish yellow; male in axillary heads; female on slender pedicels. Fruits an yellow berry. 1-seeded.

Properties : Milky juice is astringent and antisepti ;

Uses : Plant is useful in the treatment of leprosy, piles, diarrhoea, dysentery, elephantiasis and tuberculous glands. Decoction of the bark is used against fever, dysentery and diarrhoea. Roots are applied to unhealthy sinuses and ulcers.

Urticaceae

Girardinia divesifolia (Link) Friis

Syn. G. *zeylanica* Dcne.

Mal : Anachoriyanam

Distribution : Southern hill-top tropical evergreen forests.

Soil requirements : Clayey slightly acidic soils, high in potash and organic carbon.

Description : An undershrub with stinging hairs. Leaves alternate, 3-7 lobed, acuminate, serrate, truncate or cordate at base, 3-ribbed, adpressed hairy. Flowers small, greenish yellow, in pedunculate racemose cymes; the male flowers in the lower and female flowers in the upper axils. (Plate XIX. Fig. 3)

Uses : Leaves are used against headache and swollen joints. A decoction of leaves is given in cases of fever

Laportea crenulata Gaud.

Mal : Anachoriyanam

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Description : A large shrub to a small tree; bark greyish white smooth. Leaves simple, alternate, crowded towards the apex of the branchlets, oblong-lanceolate, acute or acuminate. narrowed or obtuse at base, crenate or entire with small stinging hairs towards the base of the lamina, 12-30 x 5-10 cm. Flowers small, pale green, in dichotomously branched cymes. Fruit small, black, shining. (Plate XIX, Fig. 4)

Uses : Seeds are used in the same way as coriander. Root juice is given against continuous fevers.

Oreocnide integrifolia (Gaud) Miq.

Syn. *Villebrunea integrifolia* Miq.

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Variety of soils, loam to sandy loam, strongly acidic with high organic carbon contents.

Description : A small, much branched tree; brown, smooth. Leaves simple, alternate, lanceolate or oblanceolate, acuminate, obtuse or acute at base, entire or somewhat crenulate, pubescent on the nerves beneath, 10-18 x 3.5-6 cm. Flowers very

small, in globose clusters on shortly peduncled dichotomous cymes. usually from the axils of fallen leaves.

Uses : In Java, the plant juice is taken for the retention of urine, also used as eyewash and for pimples. In Sumatra, poultice of the leaves is applied against headache.

Pouzolzia zeylanica (Linn.) Benn.

Syn. *P. indica* Gaud.

Mal : Kallurukki

Distribution : Occurs in forest plantations and in open areas in the forests.

Soil requirements : Variety of soils; favours sandy loam soils, well drained, slightly acidic, medium in organic carbon.

Description : A small slender herb. Leaves simple, alternate or opposite, ovate or ovate-lanceolate. obtuse, acute or acuminate at apex. acute or rounded at base 2-3.5 x 0.8-1.5 cm. Flowers very small, in axillary clusters.

Uses : Plant is used in the treatment of syphilis and gonorrhoea.

Salicaceae

Salix tetrasperma Roxb.

Mal : Attupala, Vanchi

Distribution : West coast semi-evergreen forests, mostly seen along the banks of rivers.

Soil requirements : Loamy soils with impeded drainage.

Description : A medium to large tree; bark rough with vertical fissures, greyish brown, thick. Leaves simple, alternate, lanceolate, acuminate. narrowed or rounded at base, serrate, 5-15 x 2.5-5 cm. Flowers small in catkins. Fruit a capsule. ovate, 0.5 cm long; 4-6 seeded.

Properties : Bark is a febrifuge.

Gnetaceae

Gnetum ula Brogn.

Syn. G. *scandem* Roxb.

Mal : Karuthaodal. Ula

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description : A large woody climber, branchlets with thickened nodes. Leaves simple. opposite. ovate-oblong or elliptic. Flowers small, whorld in solitary or panicled spikes Fruits reddish-orange, oblong. apiculate, 3-4 cm long. (Plate XX, Fig. 4)

Properties : Stem and roots are antiperiodic.

Cycadaceae

Cycas circinalis Linn.

Mal : Intha, Intalappana

Distribution : Southern moist mixed deciduous forests

Soil requirements : Loose soils with good drainage

Description : A small palm-like tree; stem with tessellated diamond shaped scars of fallen leaves. Leaves pinnate, 1 5-3 m long; leaflets 80-100 pairs, linear, acuminate. 15-30x1 cm. Flowers dioecious; male collected in erect cone consisting of short axis with imbricate scales bearing 3-5 anthers, female cone with carpophylls bearing 6-10 ovules. Seeds ovoid, orange-red, 2.4-3.5 cm long.

Propties : Gum is an *to* poison (Van Reede, 1679). Pollen is narcotic.

Uses : Juice of tender leaves is given against flatulence and vomiting. Bark and seeds are ground to a paste and applied as poultice for sores and swellings. Female cone is made into a paste and applied to the joints to remove nephritic pains and to mitigate involuntary flow of semen in gonorrhoea (Van Reede, 1679).

Orchidaceae

Acampe praemorsa (Roxb.) Rlatt. & Mc Cann

A. wightiana Lindl.

Mal : Valia-maravazha

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and Moist teak bearing forests. Also frequent in teak plantations.

Description : An epiphytic herb with stout elongated stem and thick velamin roots. Leaves 'distichous. linear-oblong, ligulate, irregularly 2-lobed at apex, thickly coriaceous, 10-20 cm long. Flower perianth yellow with red, lip white with red stripes, in supra-axillary corymbose panicles.

Properties : Plant act as a tonic.

Uses : Plant is used is the treatment of rheumatism.

Cymbidium aloifolium (Linn.) Sw.

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Description : An epiphytic herb. Leaves distichous. linear-oblong, slightly obliquely notched at apex, 30-50 x 2-3.5 cm. Flowers yellowish red in pendulous racemes.

Properties : Plant is emetic and purgative. Furnishes salep which is used as a nutrient and demulcent. The juice from the pod is used against ear ache (Joseph, 1977).

Dendrobium ovatum (Willd.) Krzl.

Syn. *D. barbatulam* auct. non Lindl.

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Description : An epiphytic herb, stem terete, elongated. Leaves lanceolate, acute 7-10 *x* 0.5-1.3 cm. Flowering stem without leaves, Flowers white with a pinkish tinge, in many flowered terminal and lateral stout racemes.

Properties : Plant is emollient. Plant juice is stomachic and laxative. It excites the flow of bile.

Eulophia epidendraea (Retz.) Fischer

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and Moist teak bearing forests.

Soil requirements : Variety of soils, well drained, medium acidic and medium in organic carbon.

Description : A terrestrial herb with pseudobulb. Leaves linear. 15-70 cm long, I-ribbed. Flowers greenish white, in 30-75 cm long racemes. Leafless at the time of flowering.

Uses : Tubers are used as vermifuge.

Eulophia nuda Lindl.

Distribution : West coast semi-evergreen forests and grassland above 500 m elevations.

Description : A terrestrial herb with spherical tuberous rhizome. Leaves elliptic-lanceolate. acute, pli-

cate, base narrowed into a long tubular sheaths, 20-35 cm long. Flowers greenish purple, in 30-50 cm long racemes. (Plate XX. Fig. 1)

Uses : Tubers acts a vermifuge. Tubers are applied to tumours and tuberculous glands of the neck. They are used to treat bronchitis and diseases of blood.

Flickingeria macraei (Lindi.) Seidenf.

Syn. *Ephem erantha macraei* (Lindl.) Hunt & Summerh.

Desmotrichum fimbriatvm Bl.

Distribution : West coast tropical evergreen forests above 600 rn aititude; sometimes growing along with moss on rocks.

Description : An epiphytic herb with creeping rhizome and pendulous nodose stem bearing narrowly fusiform pseudobulbs. Leaves 2, linear-oblong, obtuse, terminal on the pseudobulbs. Flowers white or pinkish, 1-3, from below the base of the leaves.

Properties : Plant is stimulant and demulcent, alterative, astringent to the bowels, aphrodisiac and expectorant. Fruit is aphrodisiac (Joseph, 1977).

Uses : Plant is used in the treatment of asthma, bronchitis, consumption, fever, burning sensations, biliousness and diseases of the blood.

Habenaria susannae (Linn.) R. Br.

Syn. *Platanthera susannae* (Linn,) Lindl.

Distribution : Grasslands above 700 m elevations.

Description: A stout herb with tuberous roots. Leaves ovate-oblong to oblong-lanceolate, acute or acuminate, 5-12 x 2.5-5 cm, the upper smaller and sheathing, passing into leafy bracts. Flowers white, large. with a long spur, fragrant.

Properties : Tubers are used as a cure for blebs or bullae, especially those occurring on the palm of the hand.

Luisia tenuifolia Bl.

Distribution : Southern moist mixed deciduous forests.

Description : An epiphytic herb. Leaves terete, 10-18 cm long, very variable in thickness. Flowers yellowish with purple tinge, in few flowered short spikes.

Properties : Plant acts as an emollient.

Uses : Plant is applied as poultice to boils, abscesses and tumours.

Pholidota pallida Lindl.

Syn. *P. imbricata* Lindl.

Distribution : Southern moist mixed deciduous and West coast semievergreen forests below m elevation.

Description : An epiphytic herb. Leaves with large oblong-ovate pseudobulb, solitary, elliptic-lanceolate or oblanceolate, 10-18 x 2-6 cm. Flowers white with yellow or pink shade, 6 mm long, closely set with conspicuous bracts on long pendulous raceme arising from the top of the pseudobulb.

Uses : Pseudobulbs finelymacerated with mustard oil and applied to joints to remove rheumatic pains. Water extracts of crushed pseudobulbs have curative property if taken internally (Sarkar Agarwal, 1978).

Rhynchostylis retusa (Linn.) Bl.

Distribution : Southern moist mixed deciduous and West coast semievergreen forests. Also frequent on teak in plantations.

Description : An epiphytic herb with elongated stout stem. Leaves linear oblong, deeply channelled, unequally 2-lobed at apex, very thick, 15-45 x 1-2.5 cm. Flowers pale pink with dark spots, 1.2 cm long,in many flowered long pendulous racemes.

Properties : Plant is an emollient (BSI, 1960).

Satyrium nepalense D. Don

Distribution : Southern montane wet scrub and Southern montane wet grasslands.

Soil requirements ; Variety of soils; loam, clay loam, poorly drained, medium acidic.

Description : An erect leafy herb with tuberous roots, stem up to 65 cm high, sheathed above. Leaves very variable, lanceolate, ovate, oblong or suborbicular. Flowers pink or white, in many flowered dense spikes.

Uses : The tuberous roots are used in tonic preparations.

Vanda spathulata Spreng.

Mal : Ponnampon-maravazha

Distribution : Mostly confined to the Southern dry mixed deciduous forests.

Description : An epiphytic herb, sometimes terrestrial. Leaves ovate or linear-oblong, obtuse or subacute at apex, 5-10 1-3 cm. Flowers golden yellow, in leaf opposed racemes up to 5 cm long.

Uses : Plant juice is given to temper bile and to abate phrenzy. Flowers are given against tuberculosis, asthma and mania.

Vanda tessellata (Roxb.) Hook. ex G. Don

Syn. *V. roxburghii* R. Br.

Mal : Maravazha

Distribution : Southern dry mixed deciduous forests.

Description : An epiphytic herb with scandent stem. Leaves linear-oblong, apex 3 toothed, keeled, thickly coriaceous. 15–20 x 1-2 cm. Flowers yellowish, tessellated with brown, in 6-10 flowered axillary, up to 25 cm long racemes. (Plate XX, Fig. 2)

Properties : Root is alexiteric and antipyretic.

Uses : A paste of the leaves is applied to the body during fever. Leaf juice is instilled into the aural meatus as a remedy for otitis media. Root enters into the composition of various medicated oils for external application in nervous disorders and rheumatism. It is used to treat bronchitis. inflammations, hiccough, piles, boils on the scalp etc.

Zingiberaceae

Alpinia allughas Rosc.

Mal : Mala-inchikoova

Distribution : West coast semievergreen and West coast tropical evergreen forests.

Soil requirements : Clayey with poor drainage, strongly acidic, high in potash and low in phosphate.

Description : A perrenial stout herb with scaly rhizomes. Leaves

linear or oblong-lanceolate, acuminate, cuspidate, 20-35 x 4.5-10 cm. Flowers pink in erect terminal panicles. Fruit black, globose, 1.5 cm in diameter; seeds many, small, black, angular.

Properties : The properties and uses are the same as those of *A. galanga.*

Alpinia calcarata Rosc.

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Clay loam soils well drained, slightly acidic with low potash, high phosphate contents.

Description : A perennial herb, stem 50-125 cm tall, with horizontal rhizome. Leaves linear-lanceolate or linear, finely acuminate. 15-30 x 2.5-4.5 cm. Flowers white, lip variegated with red and yellow, in terminal, narrow, dense-flowered panicles Fruit red.

Uses : Used as a substitute for *A. galanga.*

Alpinia galanga (Linn.) Willd.

Mal : Aratha, Chittaratha

San : Rasna

Distribution : West coast tropical evergreen forests. Often cultivated.

Soil requirements : Variety of soils, with good drainage; favours slightly acidic soils, low in potash and high in phosphate.

Description : A tall herb with horizontal rhizomes. Leaves oblong-lanceolate, acuminate, 18-40 x 3.5-10 cm. Flowers greenish white, lip striped with red, in terminal panicles or racemes. Fruit a berry, orange-red. (Plate XX. Fig. 3)

Properties : Rhizome is used against rheumatism, fever, catarrhal afflictions, especially in bronchial catarrh, diabetes, burning sensation of the liver and tubercular glands. Hakims use the rhizome against impotency. As a drug it is supposed to improve the voice.

Alpinia malaccensis (Burm. f.) Rosc.

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Clayey soils, poorly drained, strongly acidic with high potash and organic carbon and low phosphate contents.

Description : A perennial herb, leafy stem 2-3 m high, rhizomes horizontal. Leaves narrowly-oblong or oblong-lanceolate, acurninate, pubescent beneath, up to 90 cm long long and 18 cm broad. Flowers white, lip yellow with red stripes, in terminal racemes. Fruit globose, pubescent, yellow, about 2.5 cm in diameter.

Properties : Fruit is emetic

Uses : In Java rhizomes are applied to sores.

Costus speciosus (Koen.) Sm.

Mal : Anakoova, Channakoova

Distribution : West coast semi-evergreen, Southern moist mixed deciduous and Moist teak bearing forests.

Soil requirements : Variety of soils, sandy loam to loam, medium acidic.

Description : A tall herb with horizontal rhizome and spirally twisted stem. Leaves oblong or oblong-lanceolate, acuminate, 12-30 x 5-7.5 m. Flowers white or pinkish white

in dense terminal spikes. Fruit globosely trigonous, red, about 2 cm in diameter; seeds black with a white aril. (Plate XXI, Fig. 2)

Properties : Root is bitter. astringent,purgative,depurative,stimulant. tonic and anthelmintic (Nadakarni, 1954). The drug 'Diosgenin' is extracted from the rhizome.

Curcuma aromatica Salisb.

Mal : Kasthuirimanjal, Kattumanjal

Distribution : West coast tropical evergreen forests. Also cultivated.

Soil requirements : Variety of soils with impeded drainage.

Description : A tall herb with palmately branched rootstock and sessile annulate tubers.Leaves oblong-elliptic or oblong-lanceolate, caudate acuminate, pubescent below, often variegated above, 30-60 x 10-18 Flowers yellow, subtended by large red or pink bracts. in dense spikes. (Plate XXI. Fig. 1)

Properties : Rhizome is tonic arid carminative.

Uses : Rhizome is externally applied to bruises and sprains and to promote eruptions. .

Elettaria cardamomum (Linn.) Maton

Ma1 : Elam

San : Ela

Distribution : West coast tropical evergreen forests aobve 800 m altitude. Also cultivated.

Soil requirements : High rainfall areas where .the soils are hightly acidic, high in potash and organic carbon and low in phosphate.

Description : A tall herb with horizontal root stock. Leaves linear-lanceolate. acuminate, pubescent below, 25-60 *x* 5-7.5 cm. Flowers white, in large panicles which directly arises from the rootstock. Fruits subtrigonous, about 1 cm long; seeds obovoid-angular with a pleasant aromatic odour.

Properties : Seeds are aromatic, stimulant. stomachic, carminative and diuretic. Esseniial oil from seeds inhibit pathogenic bacterial activity. The antibacterial activity is reported to be comparable to that of standard antibacterial drugs (Narayan *et. al.,* 1980).

Zingiber montanum (Koen.) Link ex A. Dietrich

Syn. *Z. casumunnar* Roxb

Mal : Eri-channa

Distribution : West coast tropical evergreen forests

Soil requirements : Variety of soils

Description : A perennial herb with tuberous horizontal rootstock. Leafy stem 1.2-2 m tall. Leaves oblong-lanceolate, acute or acuminate, pubescent beneath, 15-20 x 2.5-7 cm. Flowers whitish, lip yellowish, in dense bright red or greenish bracteate spikes.

Properties : Rhizorne is a stimulant, carminative and flavouring agent.

Uses : Rhizome is given in cases of dyspepsia and flatulent colic. It is prescribed as an adjunct to many tonic and stimulating remedies.

Zingiber zerumbet (Linn.) Rosc. ex Sm.

Mal : Kattinchi

Distribution : Southern moist mixed deciduous and West coast semievergreen forests.

Soil requirements : Variety of soils in the moist places, sandy loam to loam, medium acidic.

Description : A perennial herb, rootstock not much branched, yellowish inside. Leafy stem 1-1.5 m tall. Leaves oblong-lariceolate or lanceolate, acuminate, 20-30 x 5-7 cm. Flowers pale yellow, in greenish, ovate-oblong bracteate spikes.

Uses : Used for the same purpose as that ot *Zingiber officinale.*

Dioscoreaceae

Dioscorea bulbifera Linn.

Mal : Kattukachil

San : Alukabheda

Distribution : Southern moist mixed deciduous forests.

Soil requirements : In moist areas, slightly acidic loamy soils.

Description: A large unarmed climbing herb with axillary warted bulbils; tuber large, elongated or globose. Leaves simple, opposite and alternate, broadly ovate, acuminate, cuspidate or caudate, deeply cordate at base, membraneous, 7-20 cm on either way, Flowers small in axillary spikes.

Properties : Undergronnd stem is bitter, tonic, alterative, aphrodisiac, stomachic, anthelmintic and expectorant. It improves appetite and complexion.

Uses : Underground stem is used to treat dyspepsia, urinary discharges, leucoderma, bronchitis, biliousness. strangury, piles, dysentery, syphilis and ulcers. In Guinea the skin and the juice of this yam are used as vesicatories.

Dioscorea hispida Dennst.

Distribution : West coast semi-evergreen and Southern moist rnixed deciduous forests

Soil requirements : Variety of soils usually in the moist areas, medium acidic.

Description : A large climbing, more or less prickly herb with lobed root tubers. Leaves 3-foliolate; leaflets cuneate-obovate, cuspidately caudate-acuminate, the lateral leaflets sometimes shortly 2-lobed. Male flowers in dense clustered spikes; female distant. in solitary spikes.

Properties : Milky juice of underground stem possess narcotic properties.

Uses : Milky juice of underground stem along with juice of *Antiaris toxicaria* is used as artow poison.

Dioscorea oppositifolia Linn.

Distribution : Southern moist mixed deciduous and Moist teak bearing forests.

Description : A large climbing herb with slender unarmed stems; rootstock with many long cylindrical tubers. Leaves simple, opposite or subopposite. very variable in shape. Male flowers in dense shortly pedunculate spikes; female distant, in solitary or fasciculate axillary spikes.

Uses : Underground stem is used for external application *to* reduce swellings.

Dioscorea pentapnylla Linn.

Mal : Nurankizhangu

Distribution : Southern moist mixed deciduous, Moist teak bearing and West coast semievergreen forests.

Soil requirements : Variety of soils; favours well drained medium acidic. sandy loam soils.

Description : A slender twining herb. prickly towards the base, often bulbils present in the leaf axils; root tubers oblong, very long. Leaves alternate, 3-5 foliolate; leaflets elliptic or ovate-lanceolate, pubescent beneath, 5-10 x 2.5-5 cm. Male flowers small, greenish, in racemes; female in pendulous spikes.

Properties : Underground stem possesses narcotic and tonic properties.

Uses : Tubers are used for dispersing swellings.

Liliaceae

Asparagus gonocladus Baker

Mal : Sathavari

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and Moist teak bearing forests.

Soil requirements : Loamy soils, well drained, medium acidic, low in potash and phosphate arid high in organic carbon

Description : A much branched subscandent shrub with short recurved spines; roots tuberous, much elongated. Leaves very minute, scaly. Cladoaes, narrowed at both ends, flat, usually falcate. 2-6 together, 2-2.5 cm *x* 2 mm. Flowers small, white, in 2.5-7 cm long racemes.

Properties : Root is an aphrodisiac

Uses : Root is used against cutaneous diseases. Root is used for the same purposes that of *A. racemosus.*

Asparagus racemosus Willd.

Mal : Sathavari

San : Abhiru, Sathavari

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Soil requirements : Loamy soils with good drainage, slightly acidic, low in potash and phosphate and medium in organic carbon contents.

Description : A subscandent undershrub armed with spines, main stem terete, branchlets striate. Leaves minute, scaly. Cladodes very slender, 2-2.5 cm x 1 mm. Flowers white, fragrant, small, in simple racemes.

Properties : Root is refrigerant. demulcent, diuretic, aphrodisiac, antiseptic, alterative, antidysenteric and galactagogue. It improves the intellectual faculties, digestive power and physical strength (Mooss, 1977),

Uses : Root is used in the treatment of biliousness, throat complaints, tuberculosis. leprosy, epilepsy, diseases of blood, kidney and liver, gleet and gonorrhoea. A decoction of tubers in milk is very beneficial in strangury. The expressed juice of the fresh roots with a little honey is given against colic (Mooss, 1977).

Crinum defixum Ker-Gawl.

Mal : Velutha-polathali

Distribution : West coast semi-evergreen and Southern moist mixed deciduous forests.

Description : Herb with tunicate ovoid bulbs with a fusiform base, 5-7.5 cm in diameter. Leaves to a bulb, linear, deeply channelled down the face, obtuse or acute, concave, thick, 50-90 X 2-2.5 cm.

Flowers white, 6-7.5 cm long, in 6-12 flowered umbels; scapes 40-75 cm long. Fruits subglobose, 2.5-3.5 cm in diameter; seeds 1-2, rugose.

Properties : Bulb is nauseant, emollient, emetic and diaphoretic. It is toxic to cattle.

Uses : Bulb is used for the treatment of burns, whitlow and carbuncle. A few drops of the leaf juice are instilled into the ear in cases of otitis.

Crinum latifolium Linn.

Mal : Chuvanna-polathali, Kattulli

Distribution : West coast semi-evergreen and Southern hill-top tropical evergreen forests.

Soil requirements : Well drained mdium acidic, loamy soils.

Description : Herb with subglobose tunicate bulb, 12-16 cm in diameter. Leaves numerous to a bulb, lorate, acuminate, membraneous, margins slightly scabrous, 30-60 x 7-12 cm. Flowers slightly fragrant, white, streaked with purple, 7.5-15 cm long, in 10-20 flowered umbels, scapes 30-50 cm long. Fruit subglobose. 3.5-5 cm in diameter,

Uses : Bulbs are used as a rubefacient in rheumatism. Also applied to piles and abscesses to cause suppuration. Leaf juice is used in cases of earache.

Curculigo orchioides Gaertn.

Mal : Nilappana

San : Musali

Distribution : Southern moist mixed deciduous, West coast semi-evergreen forests and Southern montane wet grasslands.

Soil requirements : Variety of soils, sandy loam to loam, well drained, medium to strongly acidic.

Description : Herb with elongated tuberous rootstock. Leaves linear, plicate. membraneous. glabrous or sparsely hairy, the base sheathing, 12-2.5 cm. Flowers bright yellow, about 1 cm long, in short racemes. Fruit 1.2 cm long, hypogeous, 1-4 seeded; seedsoblong. deeply grooved in wavy lines. (Plate XXII, Fig. 3)

Properties : Root is bitter, viriligenic, roborant, not easily digestible and rejuvenative.

Uses : A decoction of the roots in milk is often prescribed in the cases of leucorrhoea, gonorrhoea. general debility (Mooss, 1977). piles, jaundice, asthma and bronchitis. Roots are used as a poultice for itch and skin diseases

Gloriosa superba Linn.

Mal : Menthonni

San : Lamgali, Visalya

Distribution : Southern moist mixed deciduous, Southern dry mixed deciduous and West coast semievergreen forests.

Soil requirements : Clay loam soils well drained medium acidic with low potash and phosphate and medium organic carbon contents.

Description : A herbaceous climber with cylindric bifurcately branched rootstock. Leaves sessile, ovate-lanceolate, acuminate, the tipends in a spiral tendril, cordate at base, 7-15 x 2-4 cm. Flowers large, showy, axillary, solitary or subcorymbose towards the ends of branches, greenish yellow at first, becoming red. Fruit a

linear-oblong capsule, 4.5 cm long. (Plate XXII, Fig. 1)

Properties : Root *is* tonic, stomachic, purgative, cholagogue and anthelmintic.

Uses : Used in the treatment of leprosy, parasitial affections of skin, piles and colic. Srarch from the root is given internally in gonorrhoea but according to Mooss (1977) it is not generally used internally, considering it as poisonous.

Hypoxis aurea Lour.

Distribution : Southern montane wet grasslands.

Description : Small herb with subglobose or elongated rootstocks. Leaves radical, 6-12, narrowly linear, subcoriaceous, acute, keeled, 9-30 cm x 2-4 mm. Flowers yellow, in 1-2 flowered filiform scapes. Fruit a thin walled oblong capsule, 0.5-1 cm long, crowned by the erect perianth segments.

Uses: Plant is used as tonic and aphrodisiac in China and Malaysia.

Smilax aspera Linn.

Distribution : Southern montane wet scrub, Southern hill-top tropical evergreen and Southern montane wet temperate forests.

Description : A climbing shrub, often prickly. Leaves simple, alternate. ovate. deltoid or broadly cordate, 5-9 ribbed. leaf sheaths at base often forming tendrils. Flowers white, in sessile umbels on axillary peduncles.

Uses : Used as a substitute for *Hemidesmus indicus.*

Smilax zeylanica Linn.

Mal : Kareelanchi

Distribution : Southern moist mixed deciduous, West coast semi-evergreen and Moist teak bearing forests.

Description : A prickly climbing shrub. Leaves alternate, ovate-oblong or orbicular, acute or acuminate. 5-7 ribbed, 7-15 *x* 3.5-7 cm; leaf sheaths at base often forming tendrils. Flowers white. in pedunculate, many flowered umbels. Fruit a globose berry, red when ripe, about 0.8 cm. (Plate XXII, Fig. 4)

Uses: Root is used as a substitute for *Hemidesmus indicus* in the treatment of venereal diseases. Applied for rheumatism. Given in cases of bloodless dysentery.

Commelinaceae

Aneilema scapiflorum Wight

Distribution : West coast tropical evergreen forests.

Description : A herb with elongated tuberous roots. Leaves radical, linear, acuminate. ensiform, 10-20 x 1 cm. Flowers pale blue, in erect elongate panicles or terminal leafless scapes.

Properties : Root is an astringent and possesses tonic properties.

Uses: Root is used to treat colic, piles, infantile convulsions, asthma and spermatorrhoea.

Commelina benghalensis Linn.

: Southern hill-top tropical evergreen forests.

Soil requirements : Clayey slightly acidic soils, high in potash, phosphate and organic carbon.

Description : A herb with slender dichotomously branched stem, creeping and rooting below. Leaves alternate, ovate or oblong, obtuse. unequal at base, 2.5-7 x 1-3.5 cm, leaf sheath short or long. Flowers blue in sessile, 2-3 flowered cymes with conspicuous auricled bracts.

Properties : Plant is bitter,emollient, demulcent, refrigerant and laxative.

Uses : Plant is used in the treatment of leprosy.

Cyanotis tuberosa Schult. f.

Distribution : Growing in humus on moist rocks and crevices in trees, in evergreen forests.

Description : A suberect or prostrate herb, nodes swollen and hirsute, roots fusiform. Leaves sessile, linear or broadly ensiform, often purple beneath, 10-25 x 1.5-2.5 cm. Flowers bluish purple, in densely hirsute, axillary pedunculate cymes; bracts shorter than the cymes and falcately curved.

Uses : Root is used in the treatment of continued fever.

Murdannia nudiflora (Linn,) Brenan

Syn. *Commelina nudiflora* Linn.

Distribution : In grasslands

Soil requirements : Side of swamps, medium acidic with medium potash, low phosphate and high organic carbon contents.

Description : A slender diffuse herb with fibrous roots. Leaves simple, sessile, lanceolate or ovate-lanceolate, acute or acuminate, 3.5-7 x 1-2 cm. with prominent leaf sheaths. Flowers dark blue, in axillary, 1-3 flowered cymes, subtended by 2-3 cm long ovate or ovate-lanceolate spathe.

Uses : Plant is used to treat burns, itches and boils. Leaves are used for poulticing sores.

Palmae

Calamus travancoricus Bedd. ex Hook. f.

Mal : Arichural, Cheruchural

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Soil requirements : Clayey soils with poor drainage, strongly acidic, low in phosphate and high in potash.

Description : Slender clustering climbing palms. Leaves pinnate, up to 40 cm long, with sheathing bases covering the stem; leaflets grouped into 3-4, 25 x 2 cm; petiole and sheaths covered with spines. Plants dioecious, inflorescence up to 60 cm long, terminating into a flagellum. Fruit covered with scales, 0.5 cm in diameter.

Uses : Tender leaves are used in the treatment of biliousness, worms, dyspepsia and ear diseases.

Caryota urens Linn.

Mal : Anappana, Choontappana, Olattippana

Distribution : West coast tropical evergreen and West coast semievergreen forests.

Description : A large palm, trunk 12-18 m high and 25-45 cm in diameter, with prominent leafscars. Leaves bipinnate, 5-6 x 3-5 m, primary divisions 2.5-3 long; leaflets cm long, fasciculate or alternate, cuneiform, obliquely truncate, irregu-

larly serrate. Inflorescence 2.5-4 m long, with many drooping branches. Fruits 1.5-2 cm in diameter, reddish when ripe.

Properties : Fruit is acrid and cooling.

Uses : Fruit is used in the treatment of hemicrania. Freshly drawn toddy is laxative.

Phoenix pusilla Gaertn.

Mal : Chitteenthal

Distribution : in grasslands.

Soil requirements : Sandy loam soils slightly acidic with low potash and phosphate and high organic carbon contents.

Description : A small palm, stem very short, bulbiform, 15-25 cm in diameter, covered with bases of the petiole. Leaves pinnate 50-150 cm long; leaflets linear, 25-50 x 1-1.5 cm, fasciculate; petiole about 20 cm long. with stiff spines. Inflorescence 15-25 cm long, spadix branched. bearing many flowers. Fruit oblong-ellipsod. purplish when ripe, about 1.5 cm long.

Properties : Fresh juice is cooling and laxative.

Uses : Gum is used against diarrhoea and genito-urinary diseases.

Pinanga dicksonii (Roxb.) Scheffer

Mal : Kanakkamuku, Kattukamuku, Mala-adakka

Distribution : West coast tropical evergreen and Southern hill-top tropical evergreen forests.

Description: A slender palm, trunk green, reaching to a height of 5-7 m and 2.5-5 cm in diameter. Leaves pinnate, about 1.2 m long; leaflets numerous, sessile, 30-60 x 2-2.5 cm cm. Inflorescence with 4-8 branches, densely packed with imbricate flowers. Fruit ellipsoid 1.2-2 cm long.

Uses : Fruit is used as a substitute for betel-nut.

Araceae

Acorus calamus Linn.

Mal : Vayampu

San : Vacha

Distribution : In marshy places at altitudes above 800 m. (Munnar)

Soil requirements : Damp marshy places, strongly acidic to slightly alkaline soils.

Description : A stout herb with creeping rootstock. Leaves distichous, ensiform, linear, very long. Flowers in sessile, densely flowered cylindric spadix.

Properties : Rhizome is pungent, promotes digestive power, improves voice and intellectual capacities, causes vomiting when given in large doses. Considered to be an antidote to poison. It *is* a very powerful insecticide (Mukherjee and Govind, 1960).

Uses : Rhizome in the form of a paste is administered to young children for improving the mental faculties. It is used to treat dyspepsia, colic, remittent fevers, bronchitis, asthma and dysentery in children.

Arisaema tortuosum (Wall.) Schott.

Distribution : Southern hill-top tropical evergreen and Southern montane wet scrub forests.

Soil requirements : Moist clay loam soils in the slopes, strongly acidic.

Description : A tall herb with spherical tubers, up to cm in

diameter. Leaves 2 or 3, pedatisect, 30 cm to 1 m, the sheath often mottled with purple; leaflets sessile or petiolate, ovate-lanceolate or linear-lanceolate, caudately acuminate, almost radially arranged. Peduncle 60-120 cm long; spathe green outside, purple inside, tube as long as the ovate-oblong limb, berry 4-5 seeded, red when ripe. (Plate XXII, Fig. 2)

Uses : Seeds and roots are used in veterinary medicine.

Cryptocoryne spiralis (Retz.) Fisch. ex Wydl.

Mal : Nattathividayam

Distribution : Grows in marshy areas and along the margins of ponds.

Description : A herb with creeping tuberous rootstock. Leaves radical, linear. acute or acuminate. 7-20 x 0.5-2 cm. Spathe deep green outside, purple and transversely lamellate inside.

Uses : Rhizome in combination with other drugs is used to treat infantile vomiting, cough. fever and abdominal complaints.

Lagenandra toxicaria Dalz.

Distribution : West coast tropical evergreen and Myristica swamp forests.

Description : A herb with thick creeping rootstock, about 5 cm in thickness. Leaves elliptic-oblong, obtuse or acute; midrib very stout; 15-30 x 5-10 cm, petiole as long as the lamina. Spathe 7.5-22 cm long, tubular below, the limb ovate-lanceolate, acuminate.

Properties : Plant is very poisonous and insecticidal.

Uses : Plant is used as a remedy for itch.

Pothos scandens Linn.

Mal : Anapparuva, Paruvakodi

Distribution : West coast tropical evergreen and West coast semi-evergreen forests.

Soil requirements : Variety of soils well drained, medium acidic.

Description : A slender climbing shrub. Leaves simple, ovate, elliptic or lanceolate, acute or acuminate, 5-20 x 1-5 cm; petiole broadly winged. Spathe very small, axillary.

Uses : Powdered leavesare applied to the body in case of small pox. Stem is used for smocking in cases of asthma.

Remusatia vivipara (Roxb.) Schott.

Mal : Maravaarachempu

Distribution : West coast tropical evergreen forests.

Description : A tuberous herb with long bulbiferous shoots, bearing small scaly bulbils. Leaves peltate. orbicular-ovate or cordate, acute or acuminate, 10 x 8 cm to 45 x 30 cm. Spathe 10-12 cm long, coriaceous, tube oblong, greenish, limb broadly orbicular-ovate, golden yellow.

Uses : Juice of the plant mixed with cow's urine is considered to be alexipharmic. The root with turmeric is made into an ointment and used as a remedy for itch.

Gramineae

Bambusa arundinacea (Retz.) Roxb.

Syn. *B. bambos* Druce

Mal : Mula

San : Vamsa

Distribution : Southern moist mixed deciduous, Southern dry mixed

deciduous forests and in 'Bamboo brakes .

Soil requirements : Variety of soils, medium acidic.

Description : Tall thorny bamboo. Stem many, crowded; tufted on a rootstock; culms 20-30 m long, covered with prominent culmsheaths when young. Branches horizontal with spines at the nodes. Leaves linear-lanceolate; acuminate 10-20 x 1.5-2.5 cm. Flowers in large panicles often on the entire branches.

Properties : Leaf is emmenagogue. Bamboo manna has tonic properties. Stem and leaves are cooling and laxative. Seeds are sweet, aphrodisiac and alexiteric. Root also is used as a tonic.

Uses : Bamboo manna is used to treat fevers, cough, leprosy; jaundice. anaemia, and strangury. Stem and leaves are used in the treatment of diseases of blood, biliousness, leucoderma, inflammations. strangury and wounds and piles. Juice of the flower is instilled into the ear for ear-ache and deafness. Seeds are used against biliousness. Root is applied against ringworm and bleeding gum.

Cymbopogon flexuosus (Steud.) Wats

Mal : Inchipullu

Distribution : In grasslands, also seen in forest plantations.

Soil requirements : Variety of soils, favours loamy sand, medium acidic soils, low in potash and phosphate.

Description : A densely tufted, 1-2 m tall aromatic herb. Leaves flat, scabrous, 20-100 x 1-1.5 cm. Spikelets in long slender flexous panicles.

Uses : An infusion of fresh leaves is administered as a diaphoretic and stimulant in catarrh and febrile conditions. The oil is used as a carminative and as an application in chronic rheumatism and other painful affections. The lemon grass oil is used in the perfume industry.

Cynodon dactylon (Linn.) Pers.

Mal : Karuka

San : Durva

Distribution : Mostly seen in forest plantations and openings in all types of forests.

requirements : Sandy loam soils, well drained, with medium acidic, low potash and phosphate and high organic carbon contents.

Description : Slender prostrate herb, rooting at nodes. forming matted tufts. Leaves narrowly linear or lanceolate, finely acute, pungent, 2-10 cm x 1-3 mm. Spikes 2-6, radiating frorn the top of slender peduncle.

Properties : Plant juice is astringent and diuretic. A decoction of the root is also diuretic.

Uses : Plant juice is applied to fresh cuts and wounds. It is used in the treatment of dropsy, anasarca, hysteria, epilepsy, insanity, chronic diarrhoea, dysentry and catarrhal ophthalmia. An infusion of roots is recommended for chronic gleet. A decoction of the root is given in cases of dropsy and secondary syphilis.

Dactyloctenium aegyptium (Linn.) P. Beauv

Distribution : Mostly seen in forest plantations and open places in the forests.

Soil requirements : Sandy loam soils with good drainage, slightly acidic, medium in potash and low in phosphate and organic carbon.

Description : Annual prostrate herb, stem profusely branched, rooting at nodes. Leaves linear, acuminate, glabrous or hairy, 2.5-10 cm x 2-4 mm. Spikes 2-6, digitatively radiating, 1-3.5 cm long, rachis dorsally flattened.

Uses : Grains are given to women after childbirth. Decoction of seeds is renowned in Africa as an alleviator of pain in kidney.

Dendrocalamus strictus (Roxb.) Nees

Mal : Kal-mula

Distribution : Southern moist mixed deciduous and Southern dry mixed deciduous forests.

Soil requirements : Variety of soils favours loamy soil, slightly acidic low in potash and phosphate and high in organic carbon.

Description : A densely tufted bamboo with strong culms which are solid or with a small cavity, 5-15 m high and 2.5-7.5 cm in diameter. Culm sheaths covered with golden brown stiff hairs. Leaves oblong, with twisted acumen, scabrous along the margins, 2.5-7.5 (-15) cm by 0.6-30 mm. Spikelets in dense globose heads.

Properties : Silicious matter acts as a tonic and astringent. Leaves are ecbolics to animals.

Heteropogon contortus (Linn.) P. Beauv

Distribution : In grasslands.

Soil requirements : Sandy loam, medium acidic soils, low in potash and phosphate and high in organic carbon.

Description : A perennial herb, stem slender, densely tufted, erect or decumbent below. Leaves linear, acuminate, flat, 15-25 cm x 2-5 mm. Spikelets in racemes, 3-7 cm long, awns of the racemes often twisted together.

Properties : Root is stimulant and diuretic.

Paspalum scrobiculatum Linn.

Mal : Varaku

San : Kodrava

Distribution : In forest plantations, mostly seen in moist places.

Soil requirements : Loamy soils, medium acidic with medium potash, low phosphate and high organic carbon contents.

Description : An annual tufted herb. Leaves bifarious, linear, finely acuminate, 10–30 cm x 2-8 mm. Spikes 2-6, distant and spreading, 2.5-12 cm long; spikelets 2 ranked, sessile.

Properties : Plant acts as a tonic and alexiteric. It occasionally develops narcotic properties.

Uses : Plant is used in the treatment of ulcers.

Vetiveria zizanioides (Linn.) Nash.

Syn. *Andropogon muricatus* Retz.

Mal : Ramacham

San : Usiram

Distribution : In grasslands and Southern dry mixed deciduous forests.

Soil requirements : Low lying poorly drained lands where the soils are generally sandy loam to clay, strongly acidic to slightly alkaline. low in phosphate, medium in potash, and niedium in organic carbon.

Description : A coarse perennial grass, 1-2 m tall, rhizome stout with spongy aromatic roots, culms more or less compressed below. Leaves narrow, distichous at base, 30-90 cm by 3-10 mm. Spikelets in terminal panicles.

Properties : An infusion of roots is considered refrigerant, febrifuge, diaphoretic, stimulant, stomachic, anthelmintic and emmenagogue.

Uses : is applied externally for cooling in fevers. In Trinidad roots are used in the treatment of pleurisy (Wesley Wong, 1976).

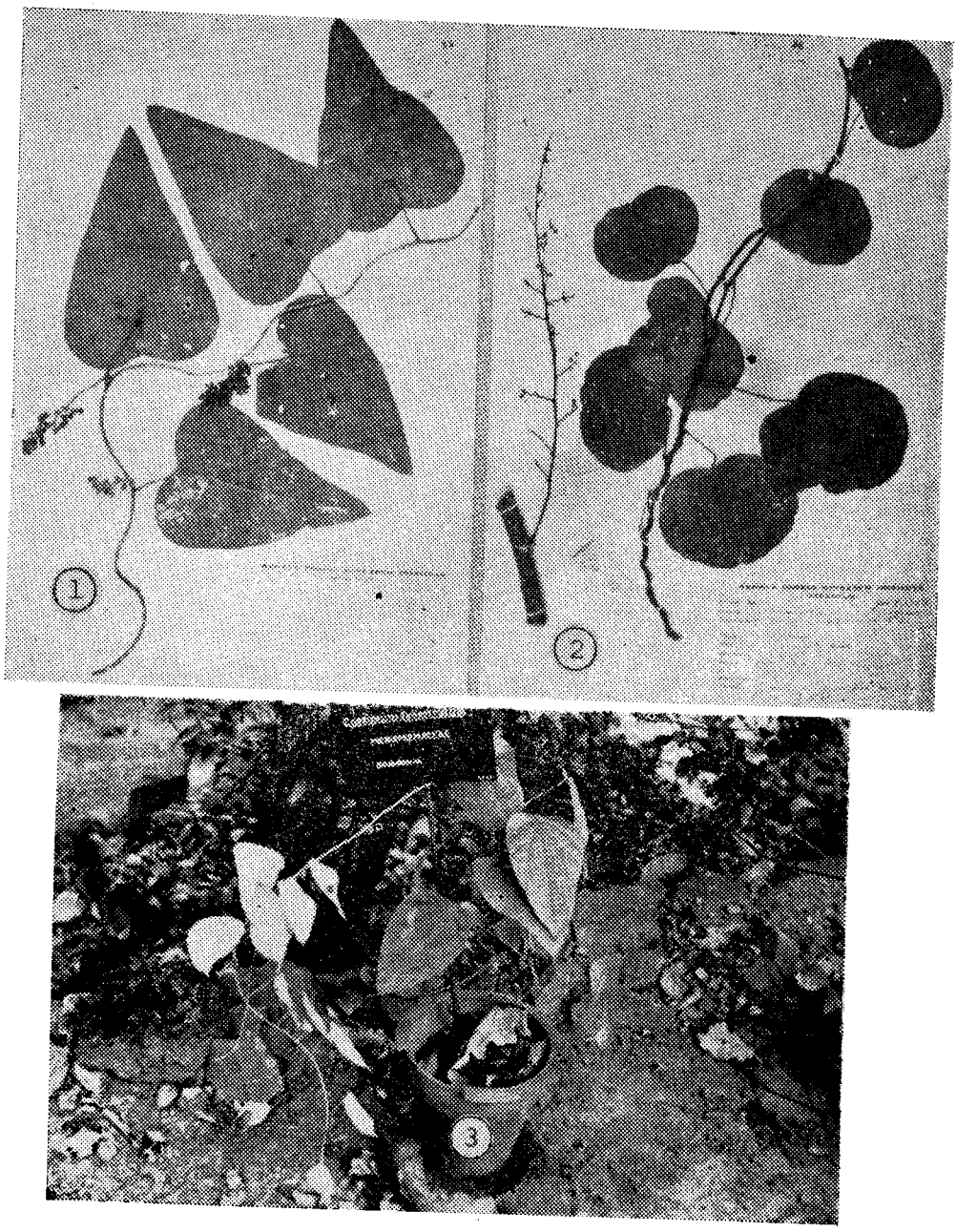


Plate I 1. Cyclea peltata 2. Diploclisia glaucescens
3. Coscinium fenestratum

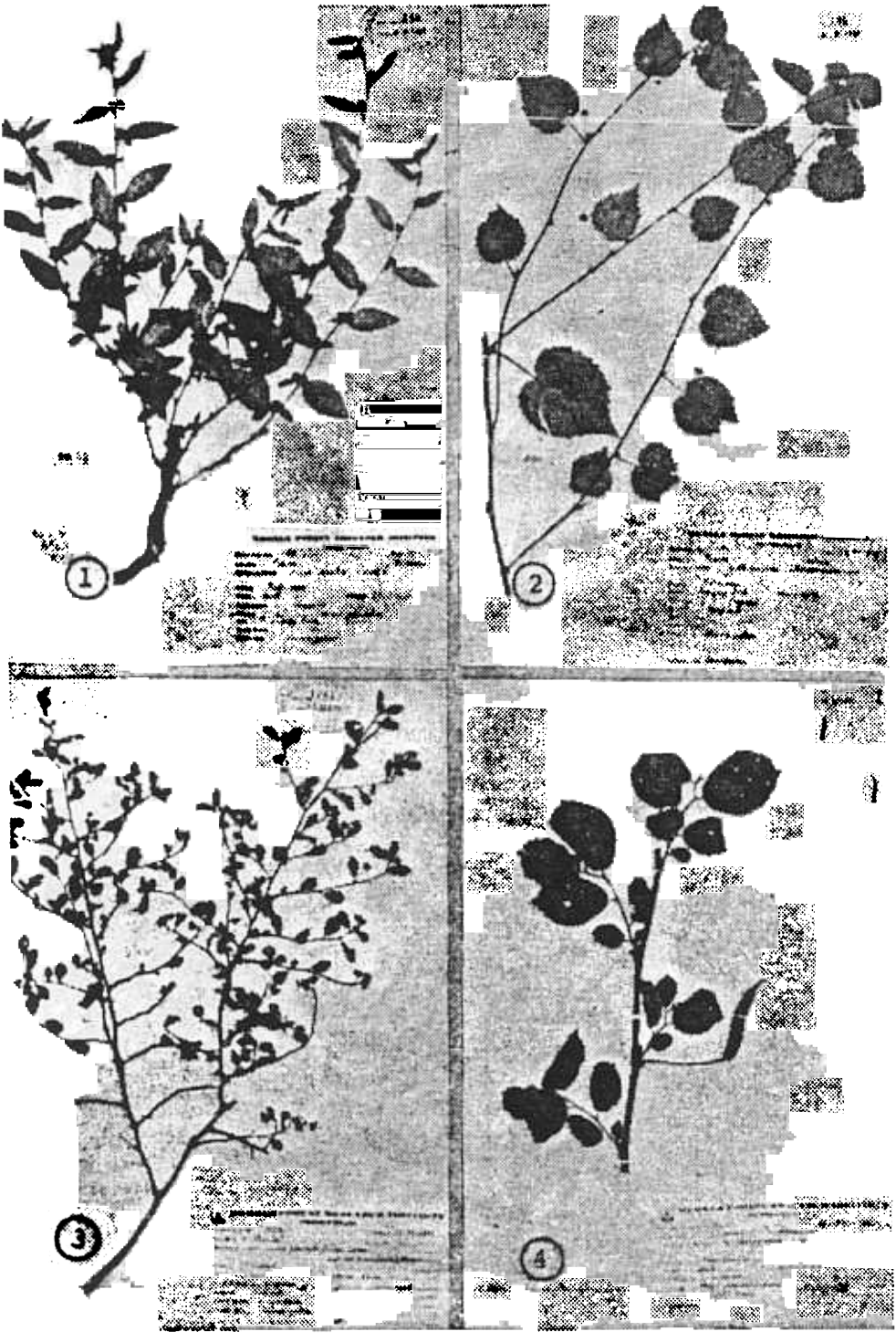
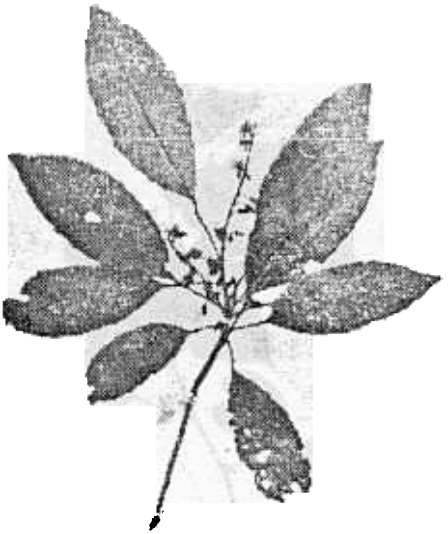
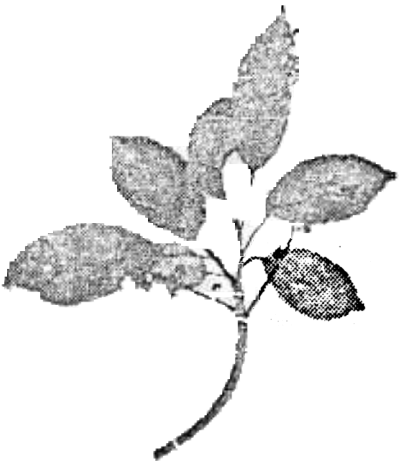


Plate II 1. Sida acuta 2. Sida cordifolia 3. Sida rhombifolia ssp. retusa
4. Helicteres isora





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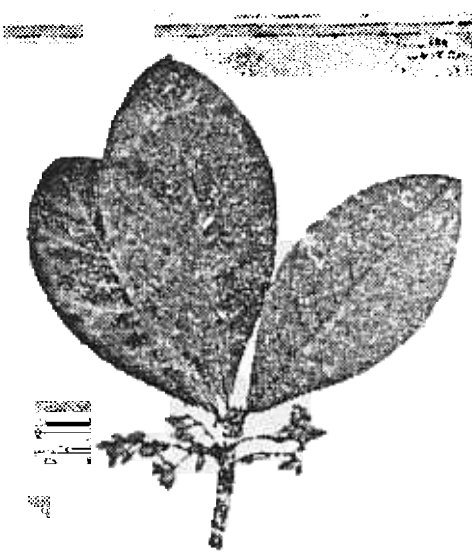

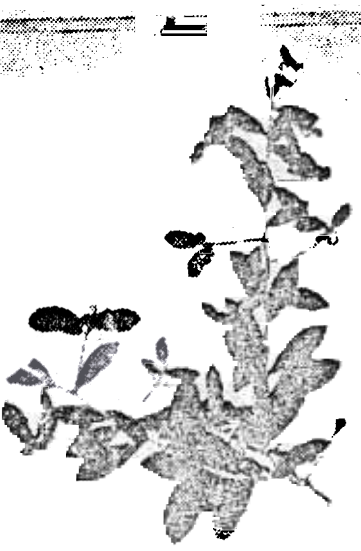

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Plate III 1. Elaeocarpus serratus 2. Elaeocarpus tectorius
3. Elaeocarpus tuberculatus 4. Hugonia mystax

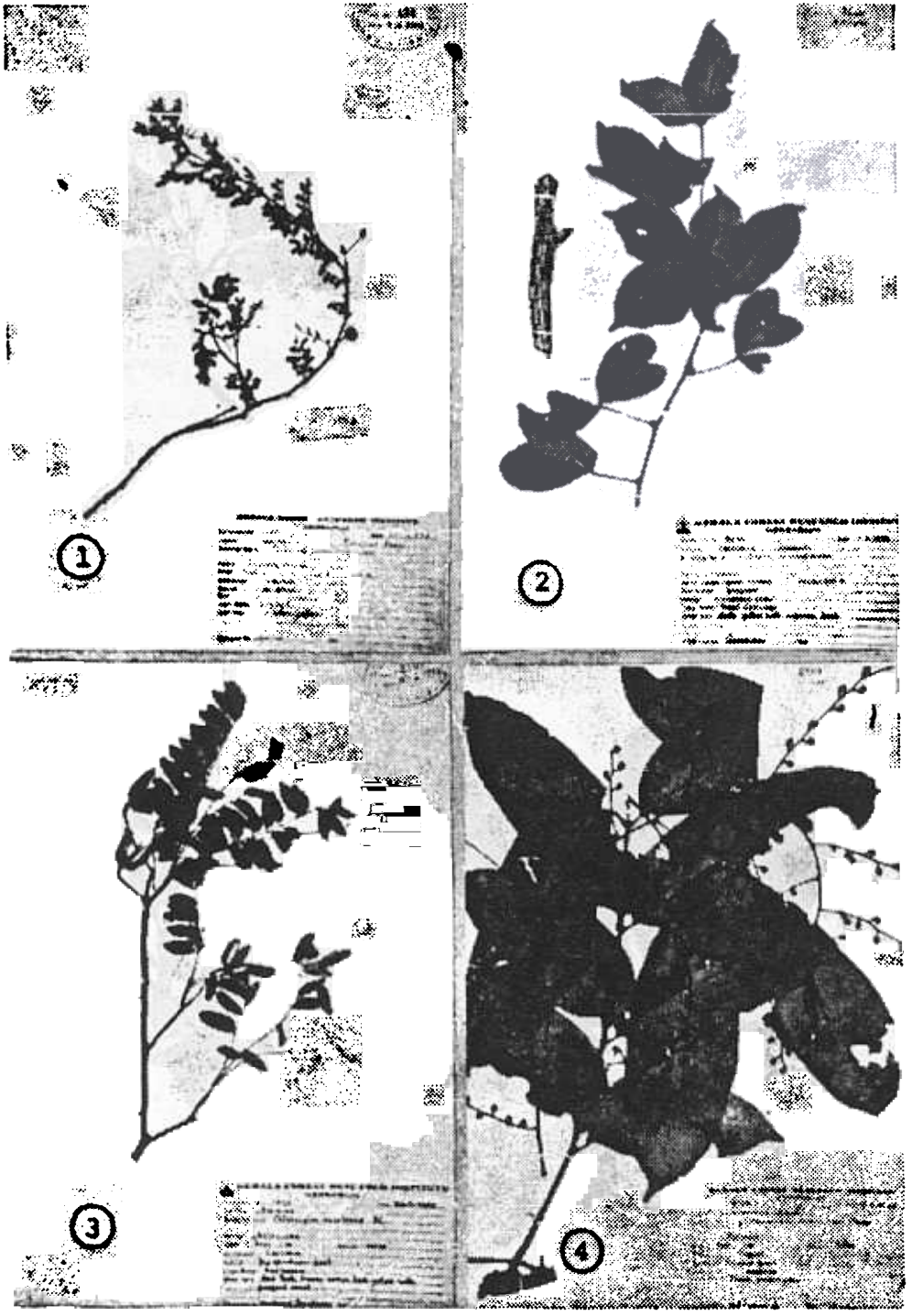
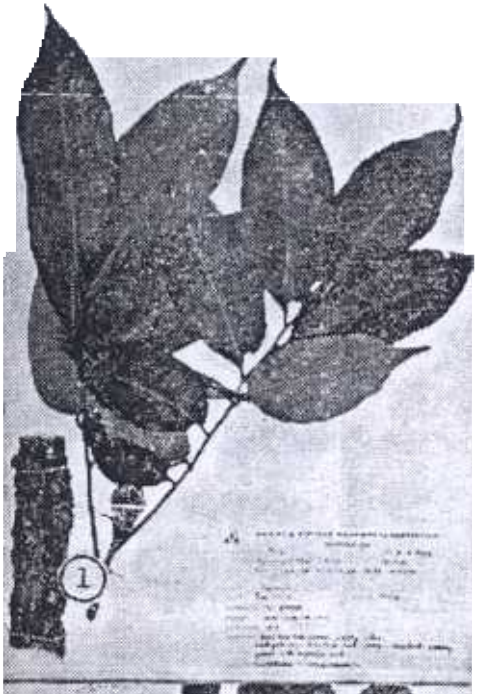
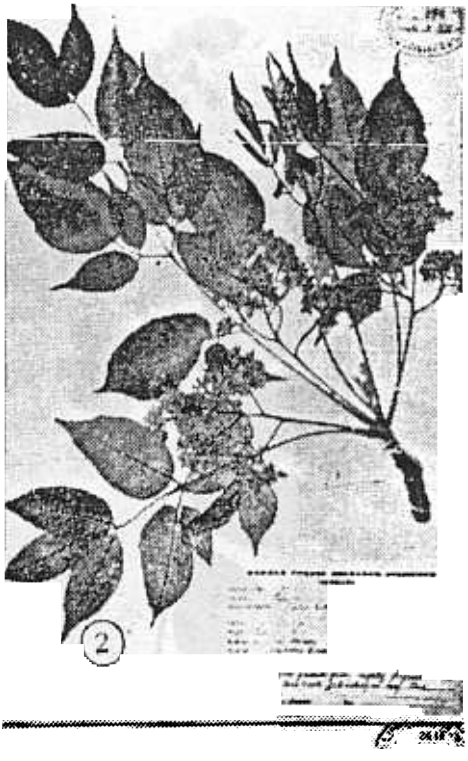
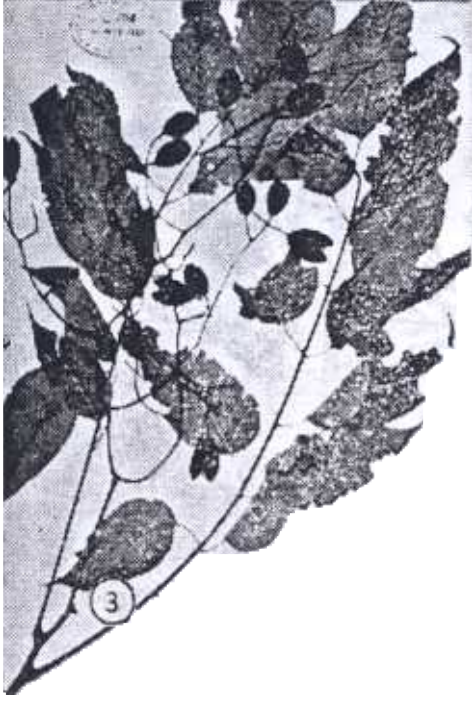
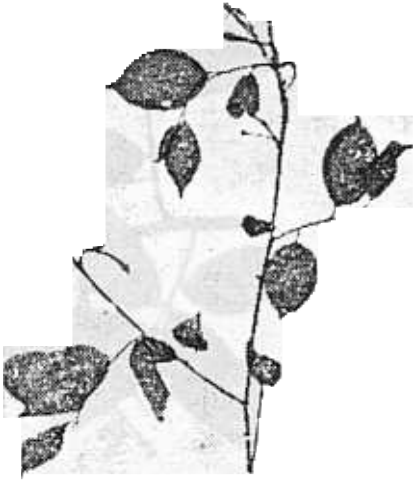


Plate IV 1. Tribulus terrestris 2. Toddalia asiatica
3. Chloroxylon swietenia 4. Aphanamixis polystachya









Dysoxylum malabaricum

Toona

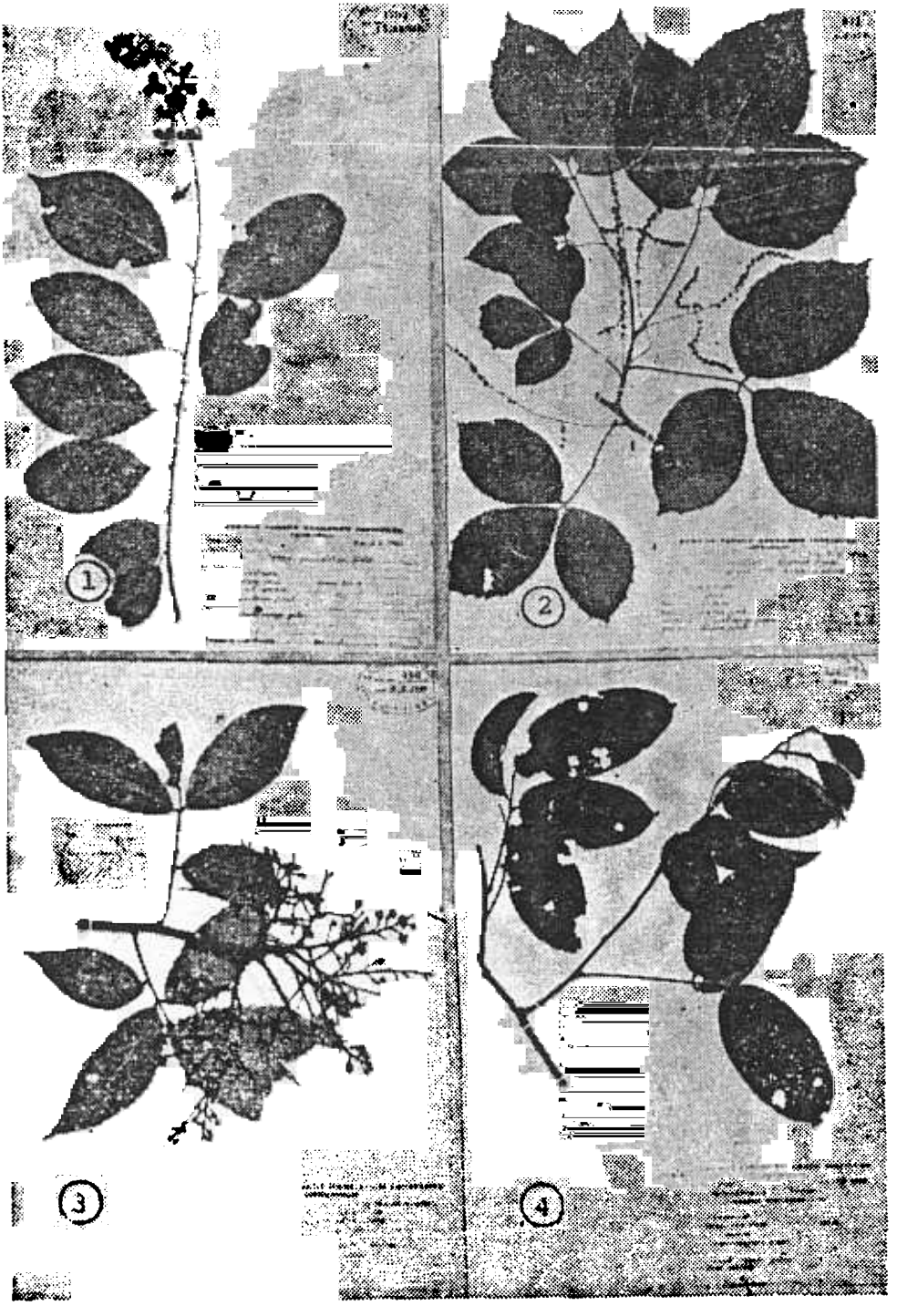


Plate VI 1. Celastrus paniculata 2. Allophylus cobbe 3. Sapindus laurifolius
4. Connarus monocarpus

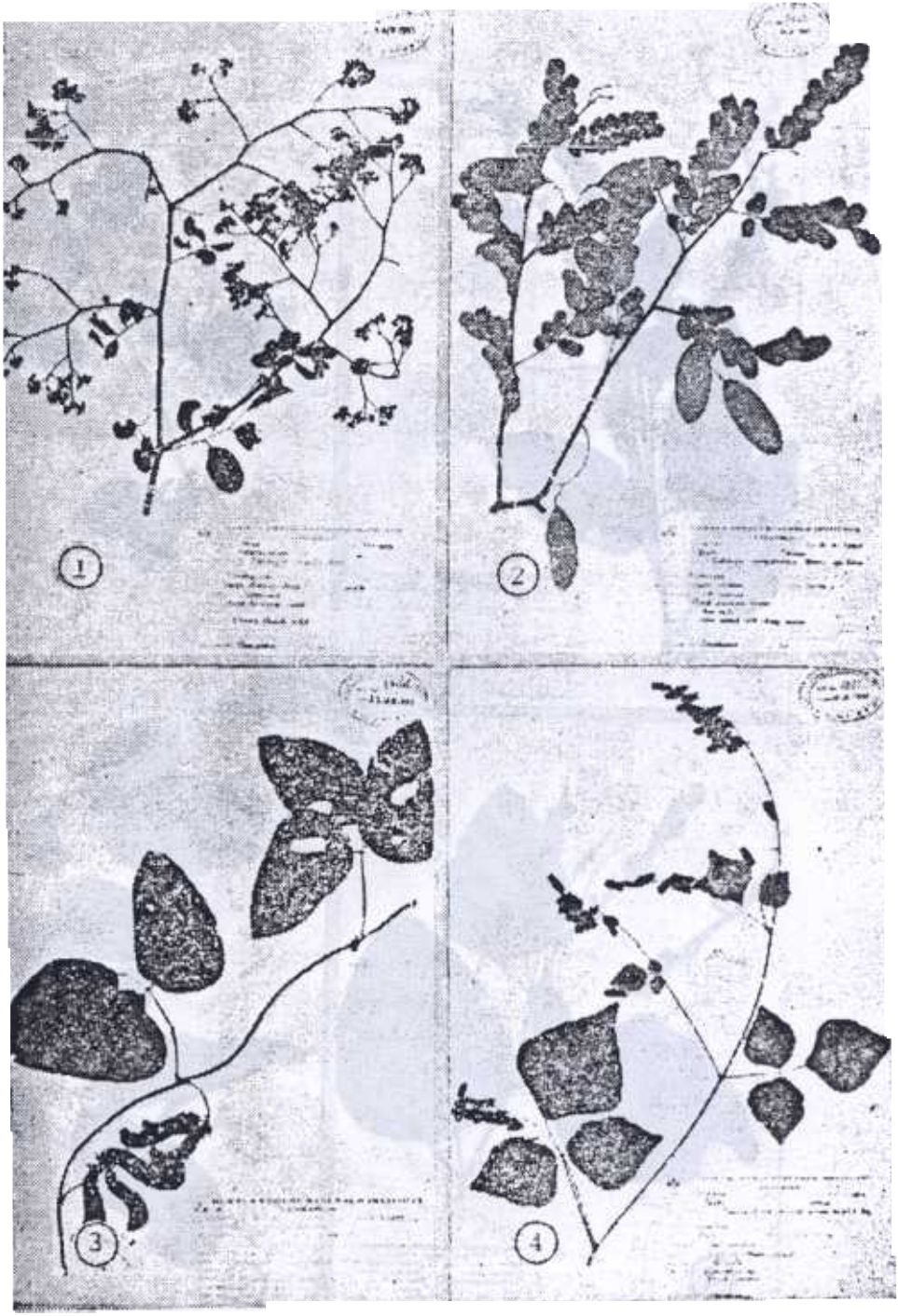


Plate VII 1. Dalbergia volubilis 2. Dalbergia symapathetica
3. Mucuna pruriens 4. Pseudarthria viscida

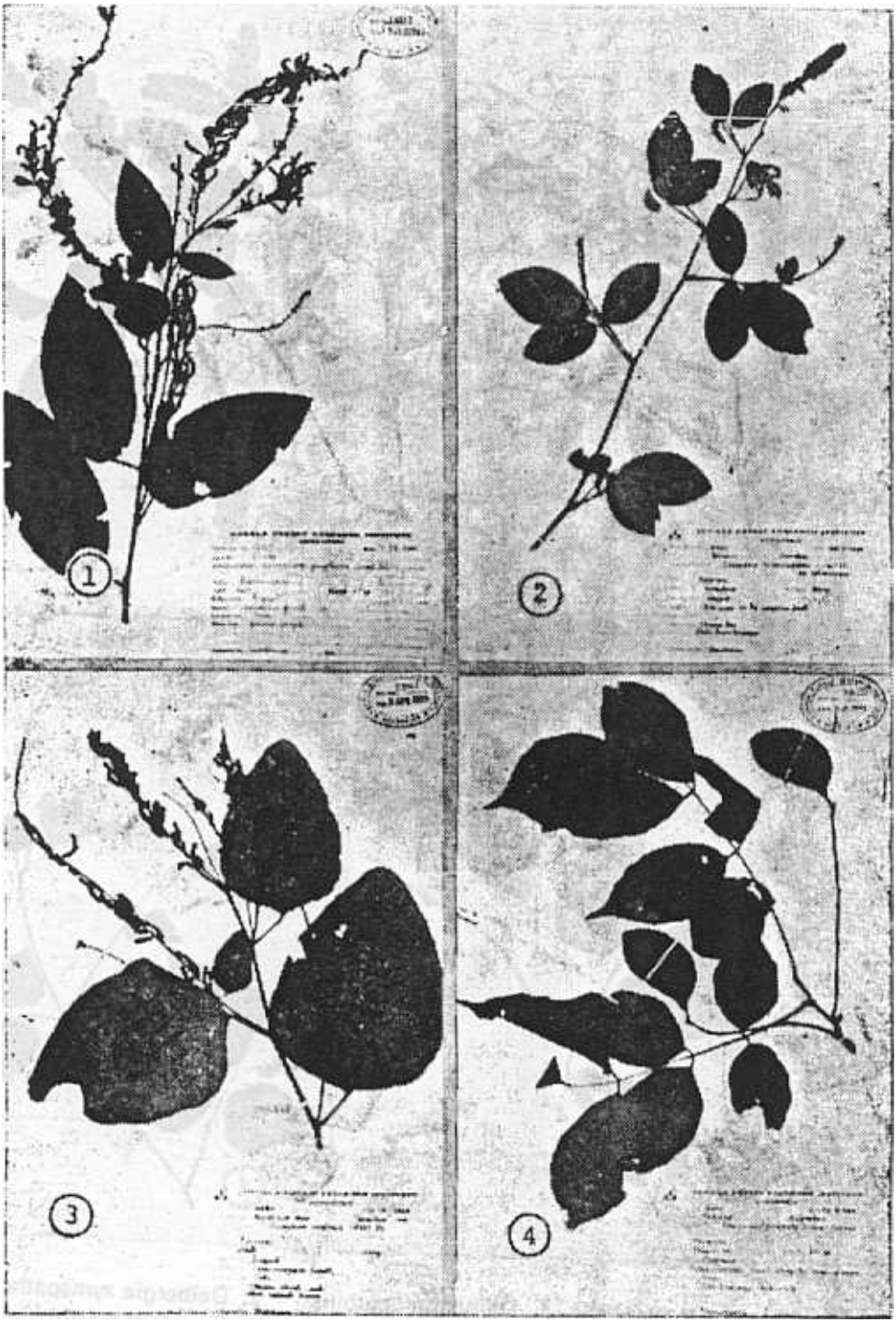


Plate VIII 1. Desmodium gangeticum 2. Desmodium heterocarpon
3. Desmodium velutinum 4. Pongamia pinnata

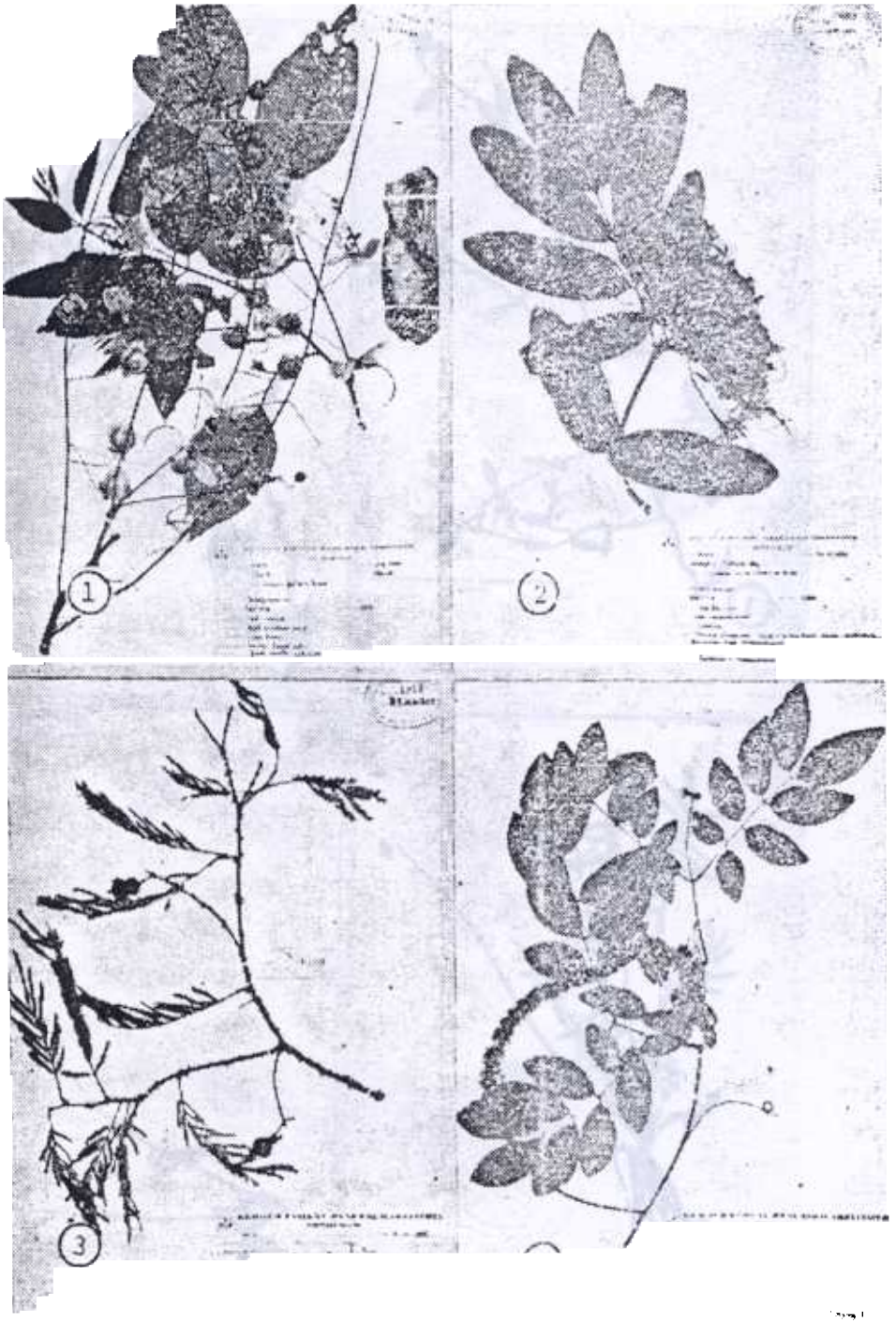


Plate Cassia fistula Saraca asoca

3. Acacia rugata Entada pursaetha

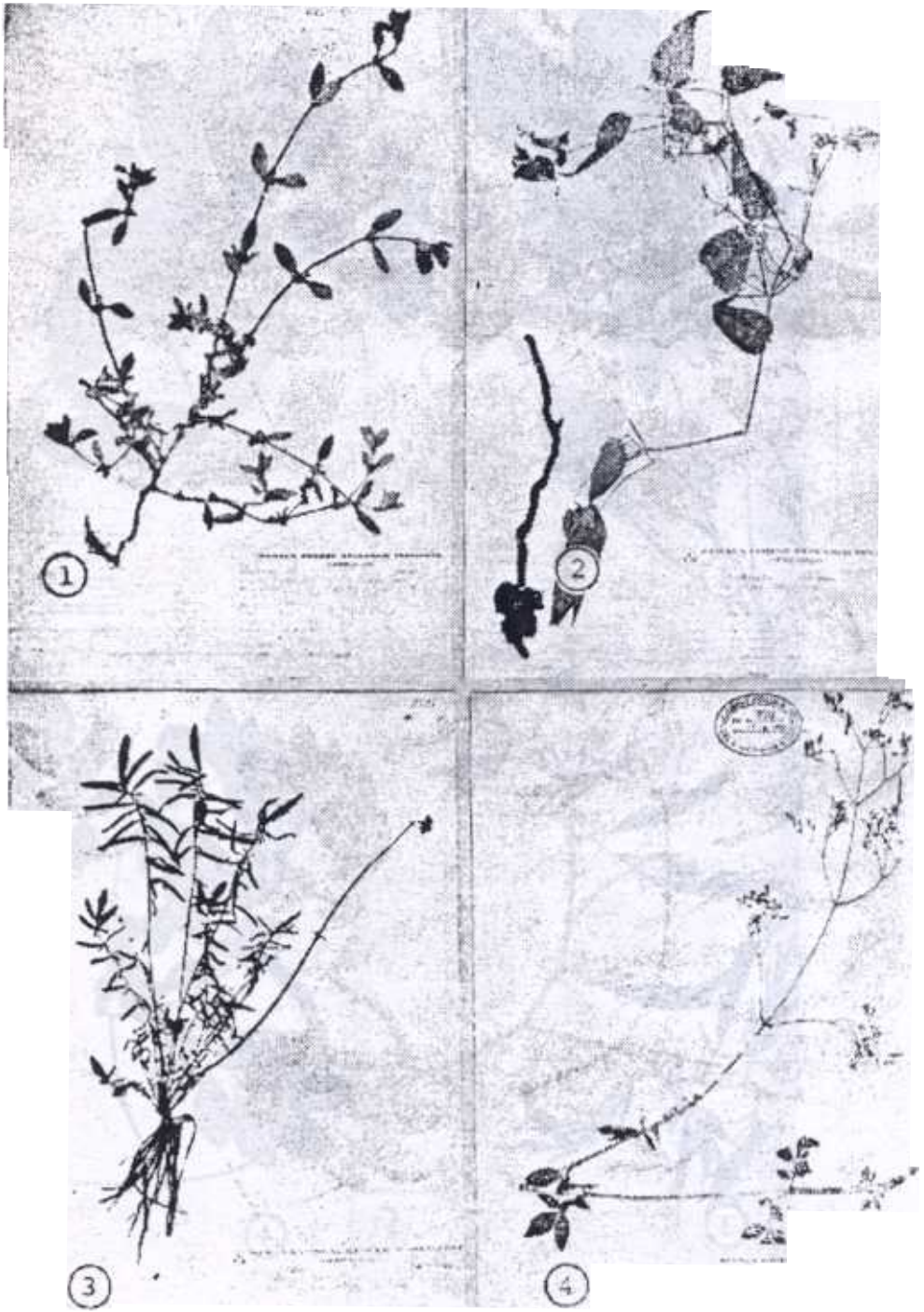


Plate X 1. Borreria articularis 2. Rubia cordifolia
3. Valeriana beddomei 4. Valeriana arnottiana

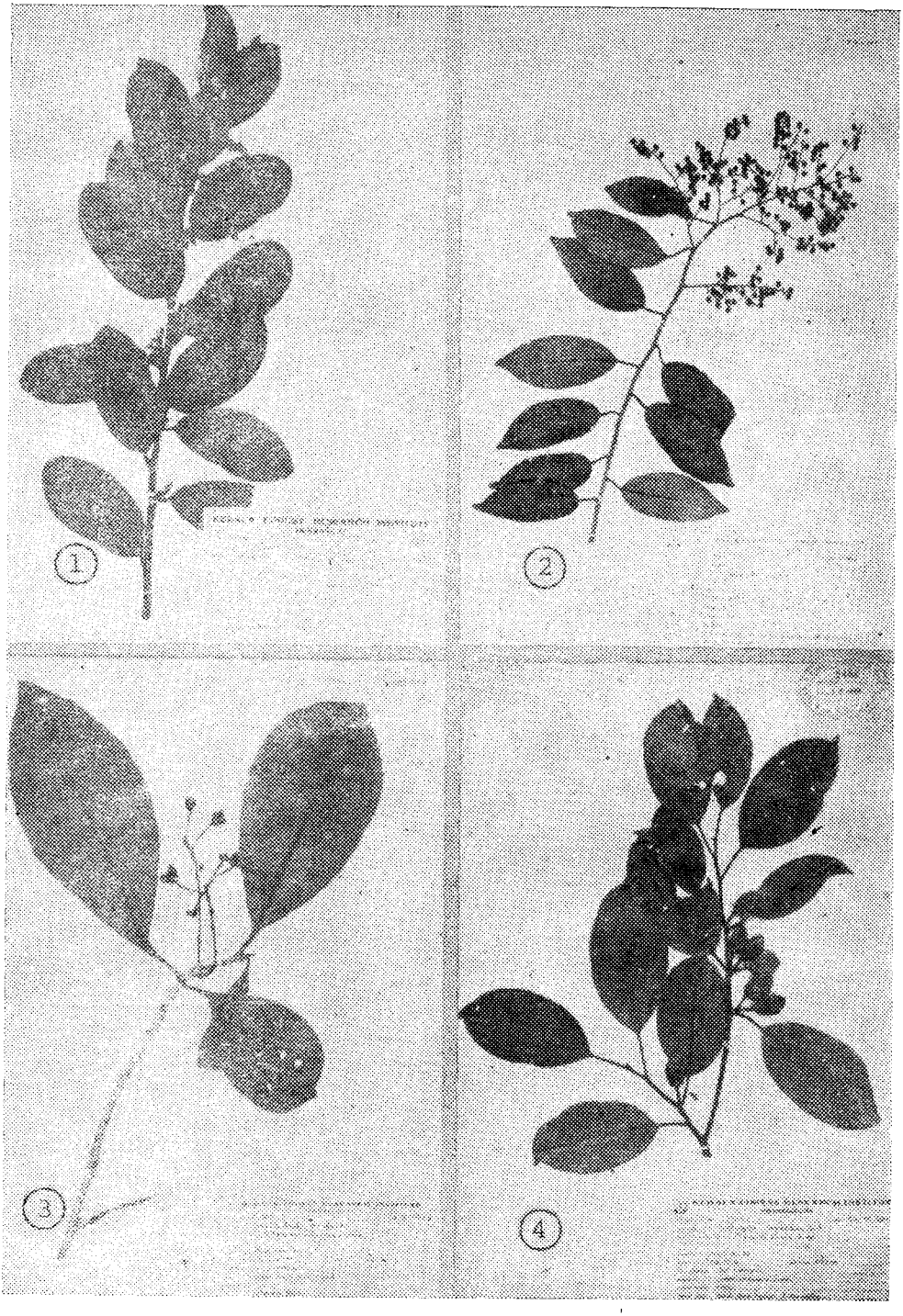
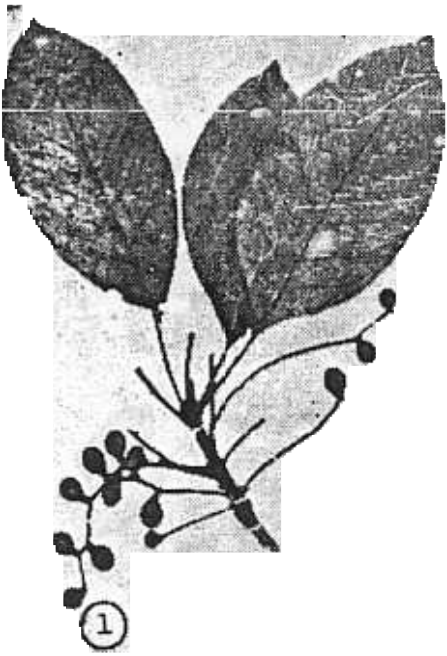


Plate XI 1. Gaultheria fragrantissima 2. Embelia ribes
3. Ardisia solanacea 4. Mimusops elengi



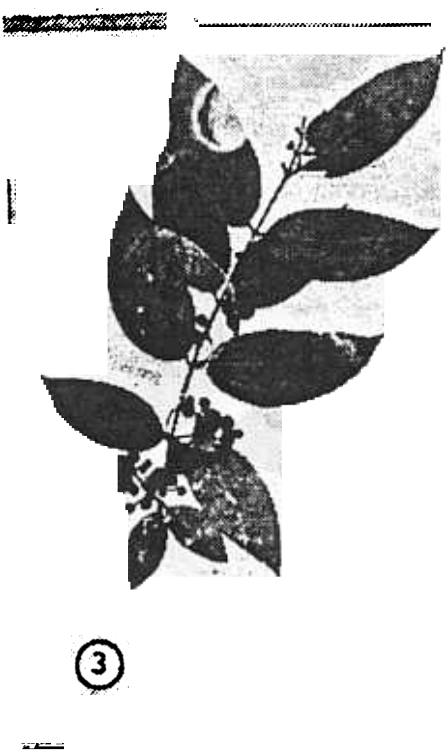


Plate XII 1. Terminalia bellirica 2. Symplocos cochinchinensis ssp.
3. Myxopyrum smilacifolium 4. Rauvolfia serpentina

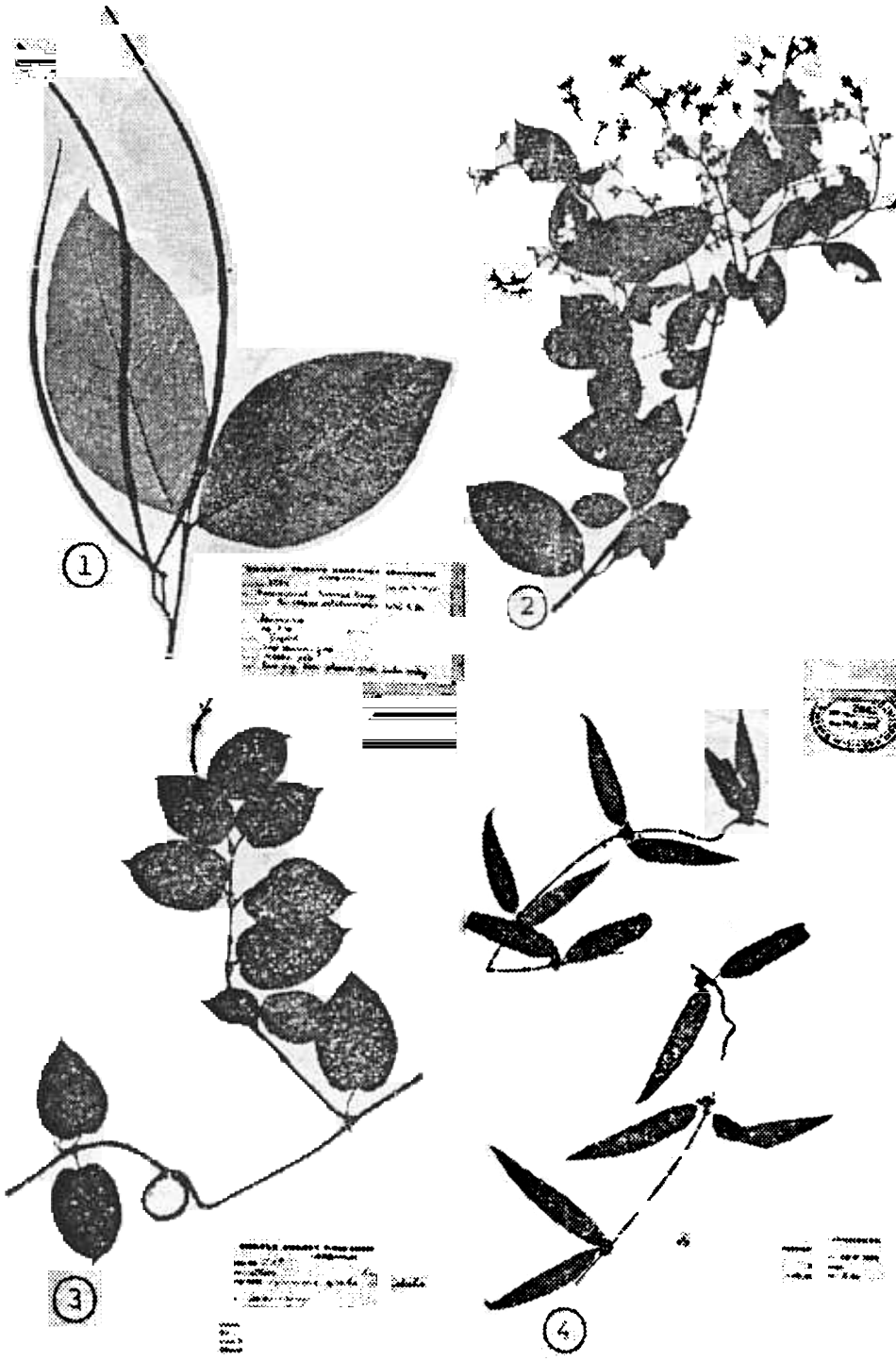


Plate XIII 1. Holarrhena pubescens 2. Ichnocarpus frutescens
3. Gymnema sylvestre 4. Hemidesmus indicus

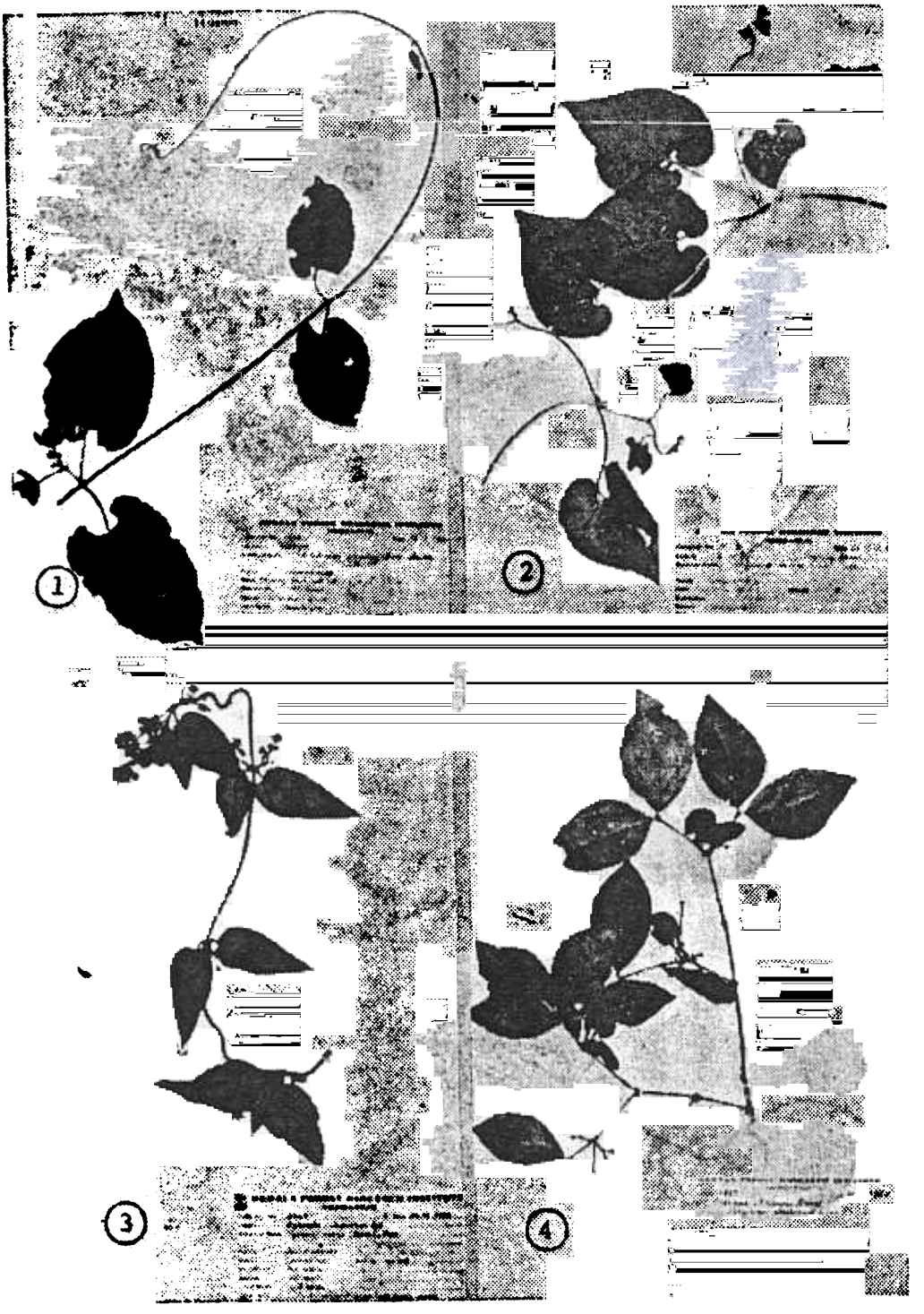
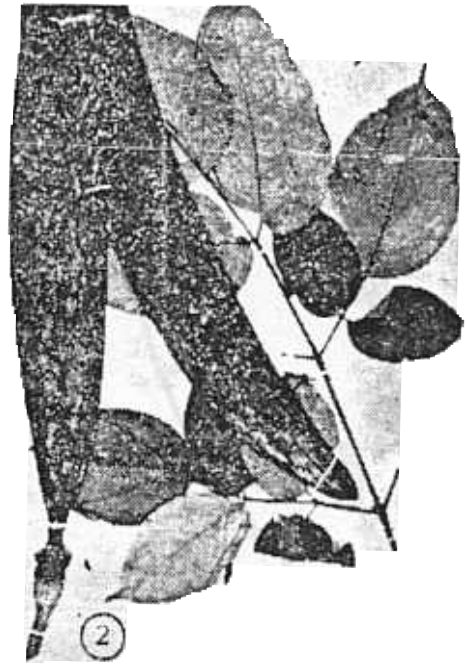


Plate XIV 1. Holostemma adakodien 2. Pergularia daemia
3. Tylophora indica 4. Strychnos potatorum



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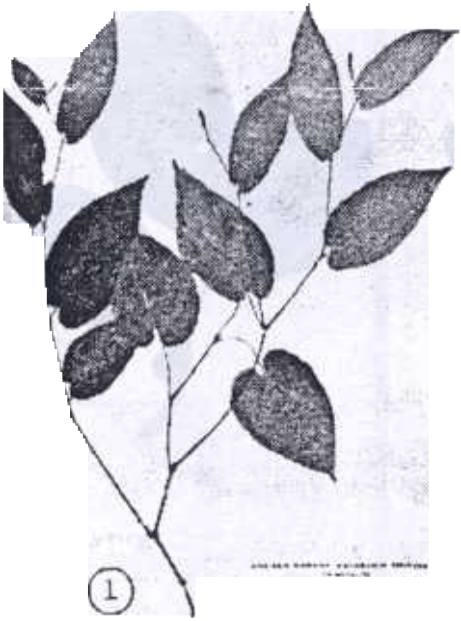
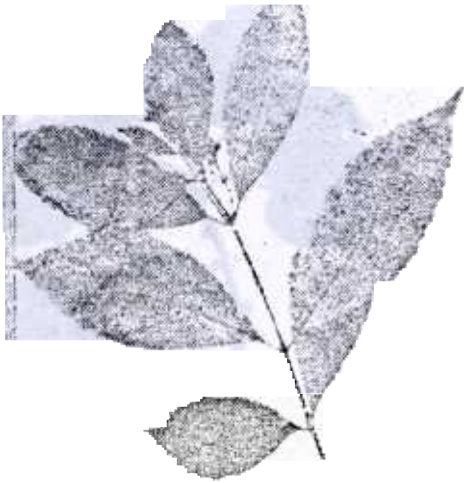




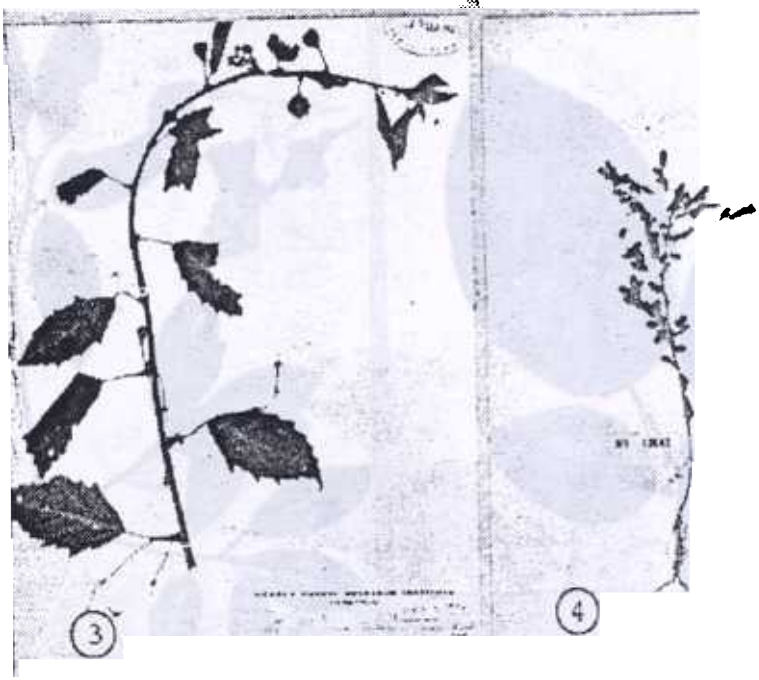
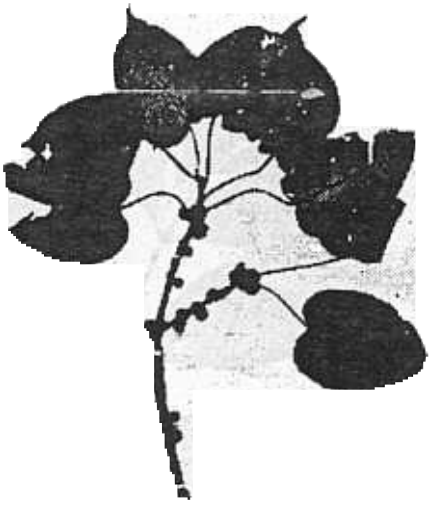


Plate XVII 1. Piper longum
2. Sarcandra chloranthoides
3. Baliospermum montanum
4. Phyllanthus fraternus



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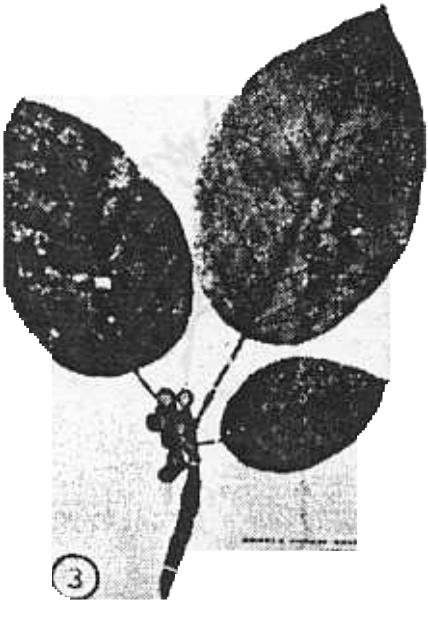
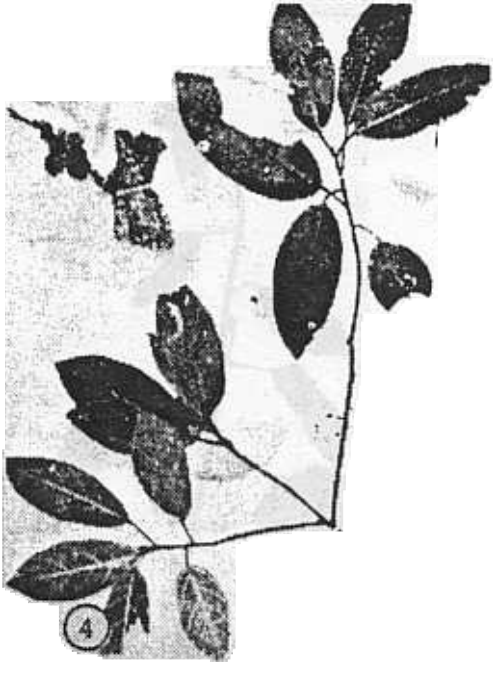




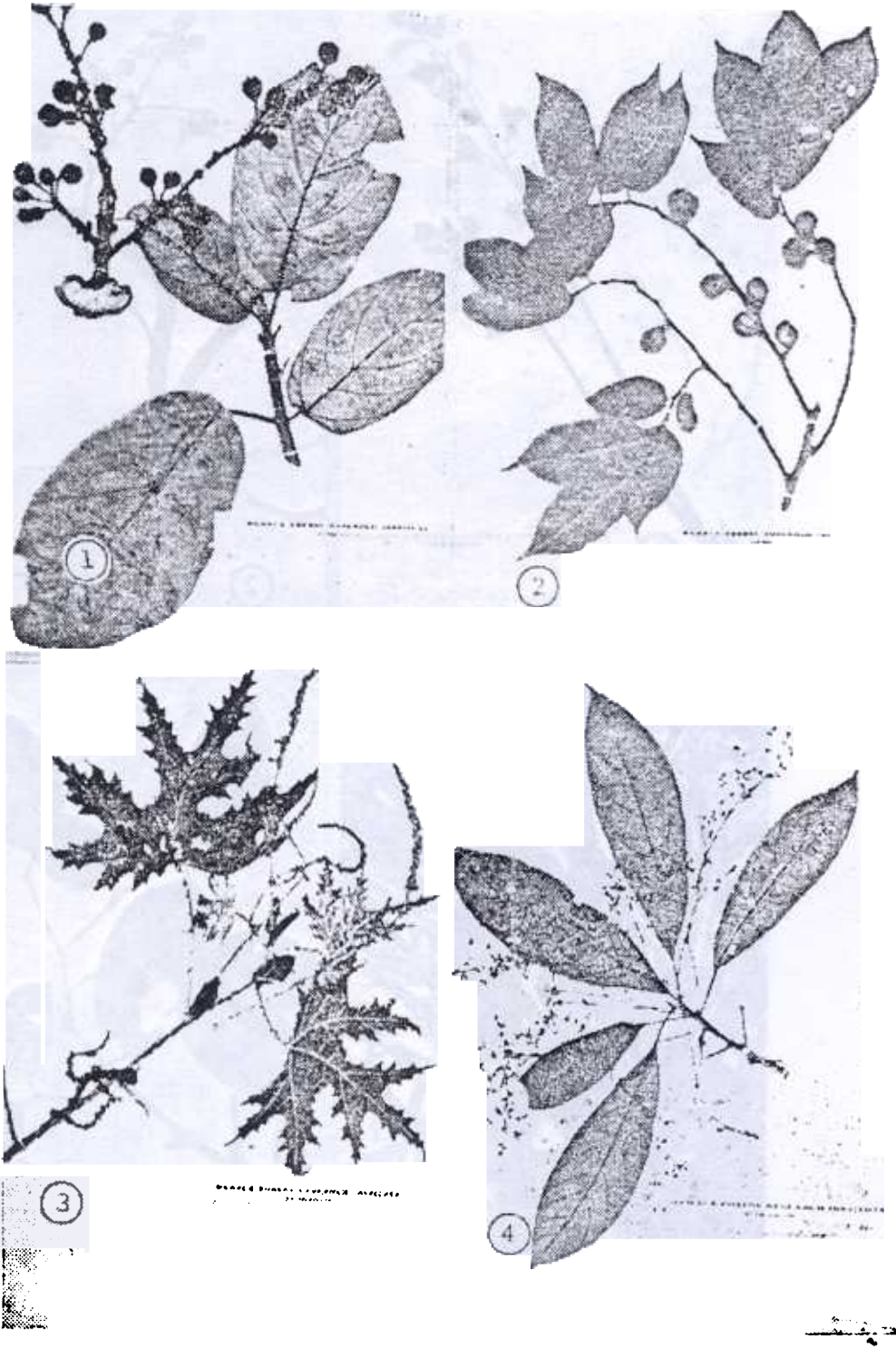


Plate XIX 1. Ficus hispida
2. Antiaris toxicaria
3. Girardinia zeylanica
4. Laportea crenulata

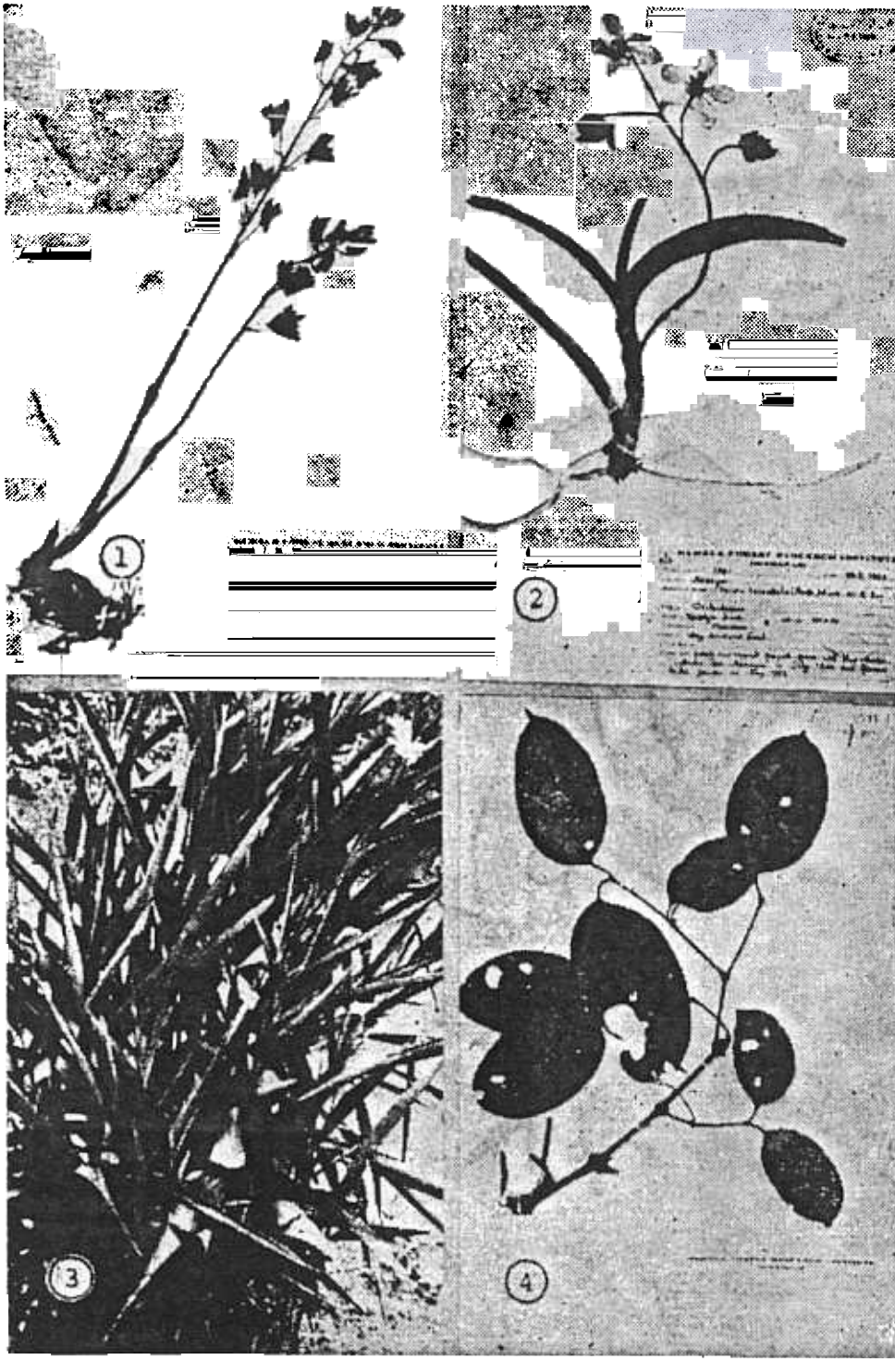
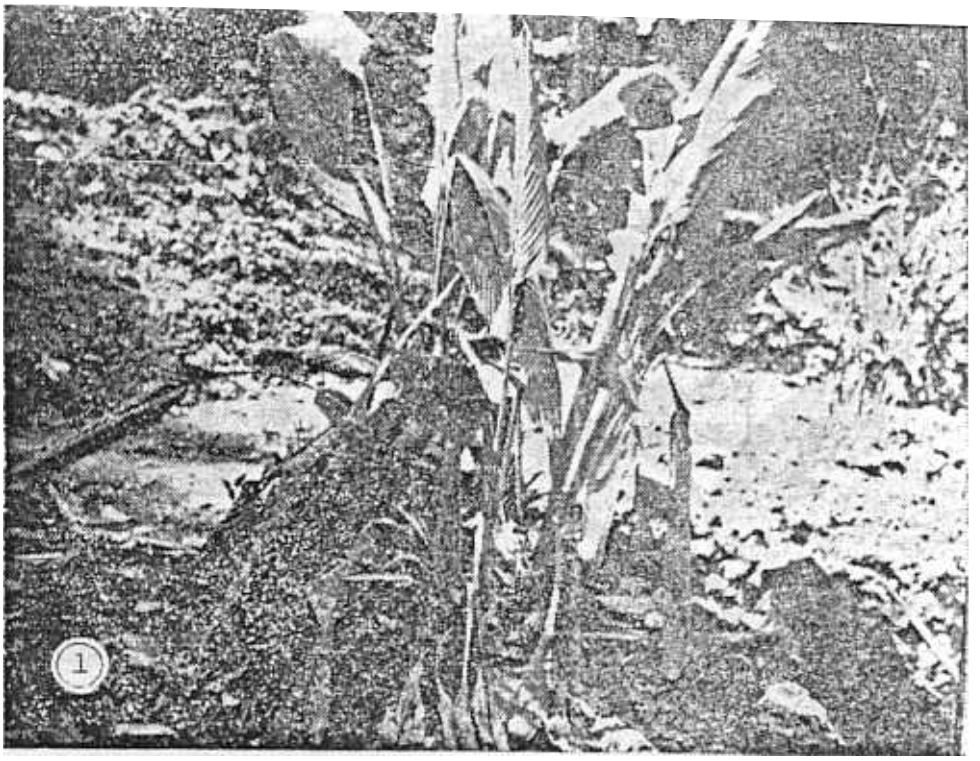


Plate XX 1. Eulophia nuda
2. Vanda tessellata
3. Alpinia galanga
4. Gnetum ula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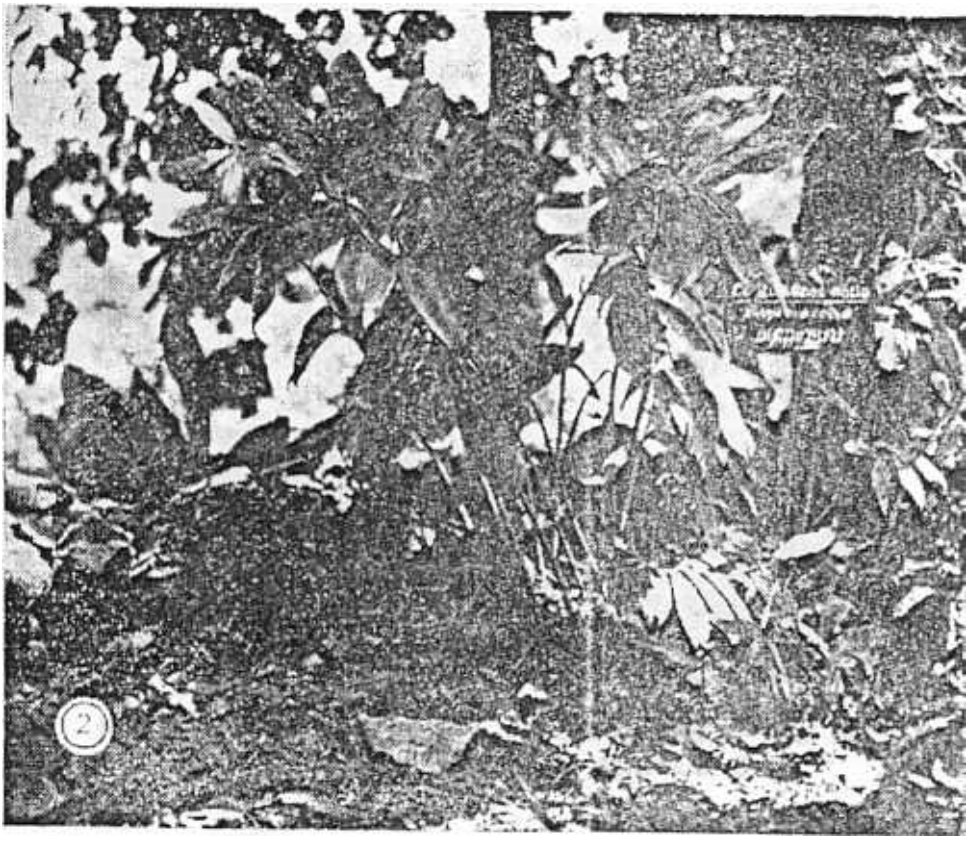
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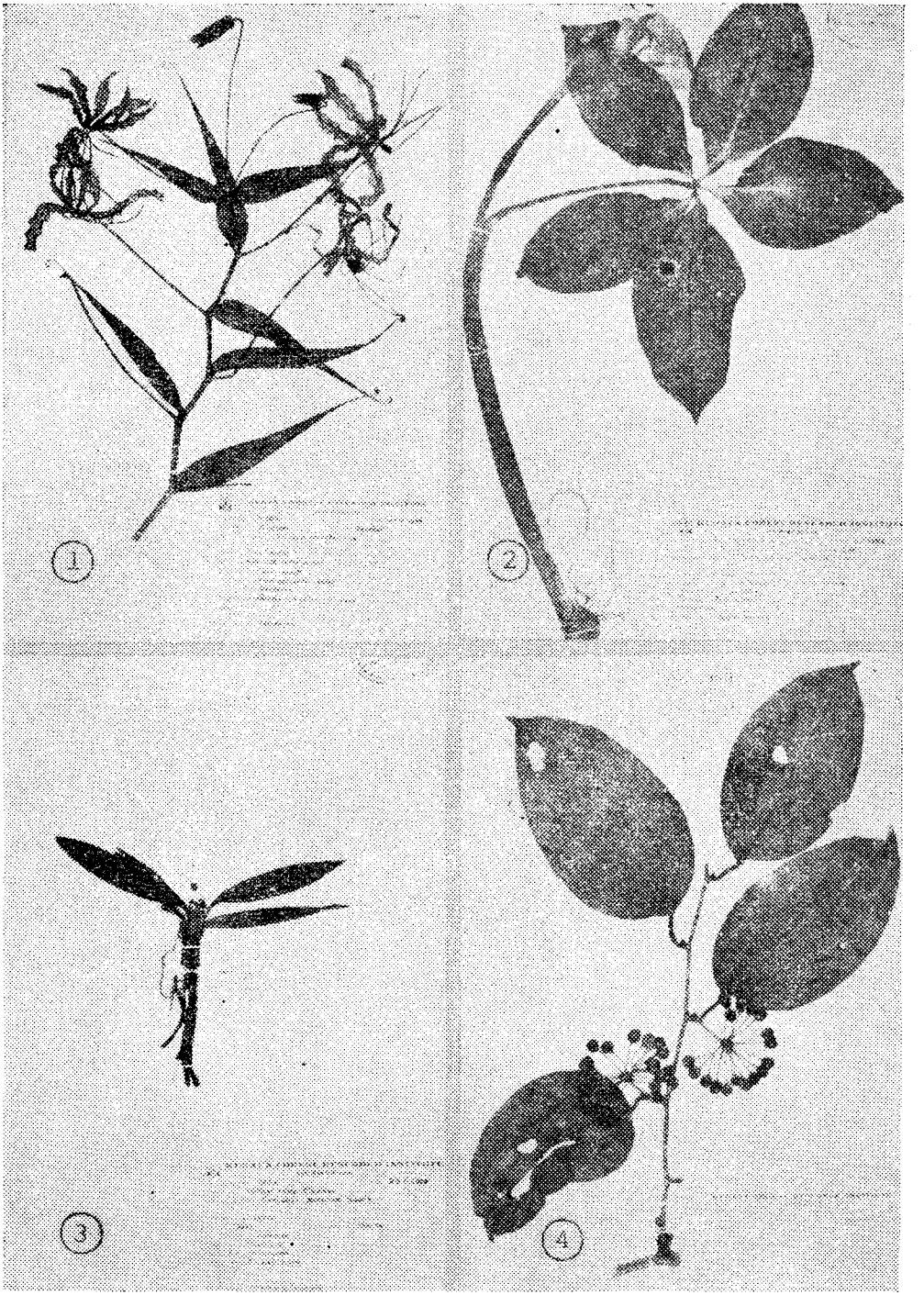

Plate XXII 1. Gloriosa superba
2. Arisaema tortuosum
3. Curculigo orchioides
4. Smilax zeylanica

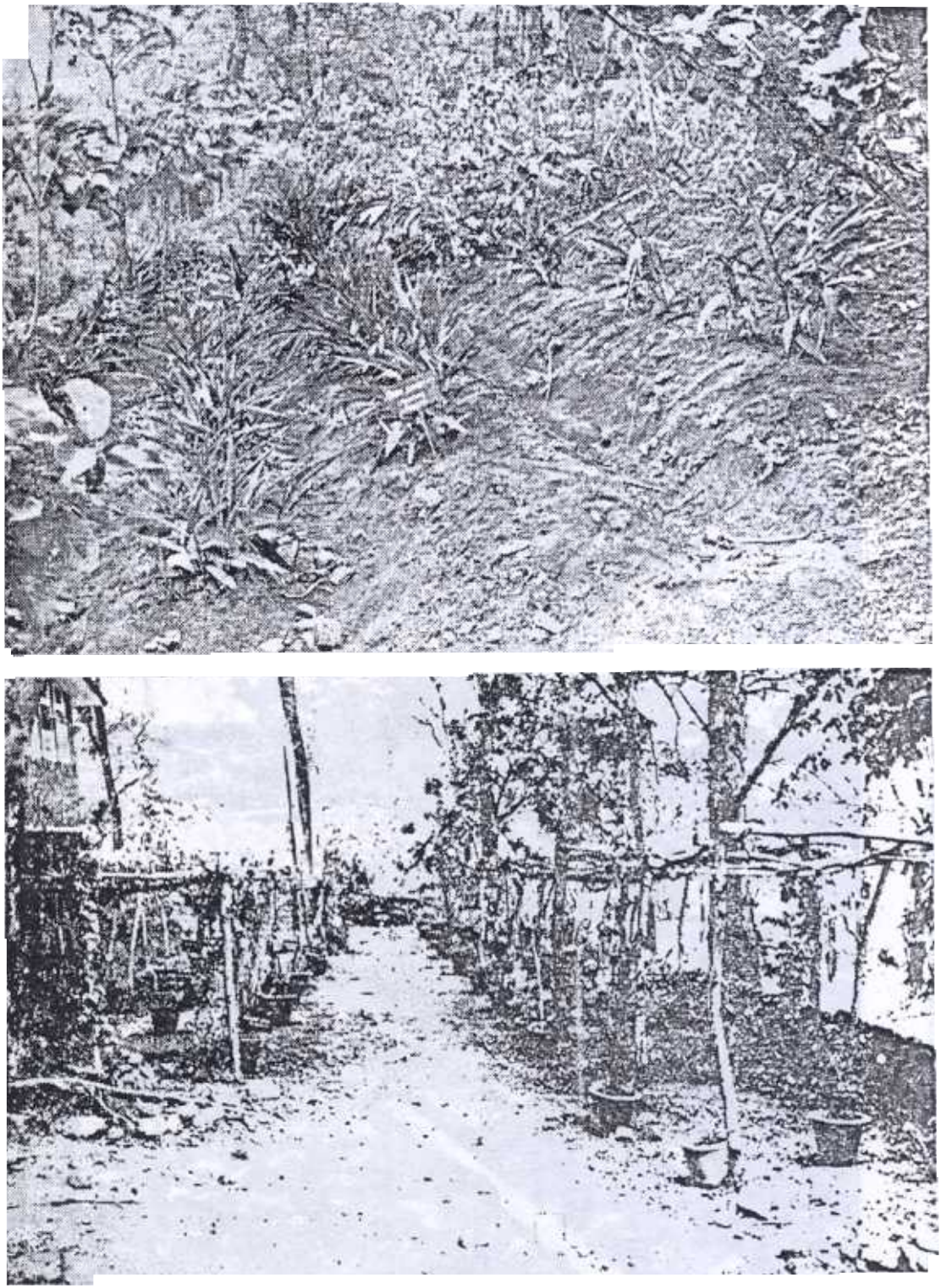

Plate XXIII Medicinal Plant Garden

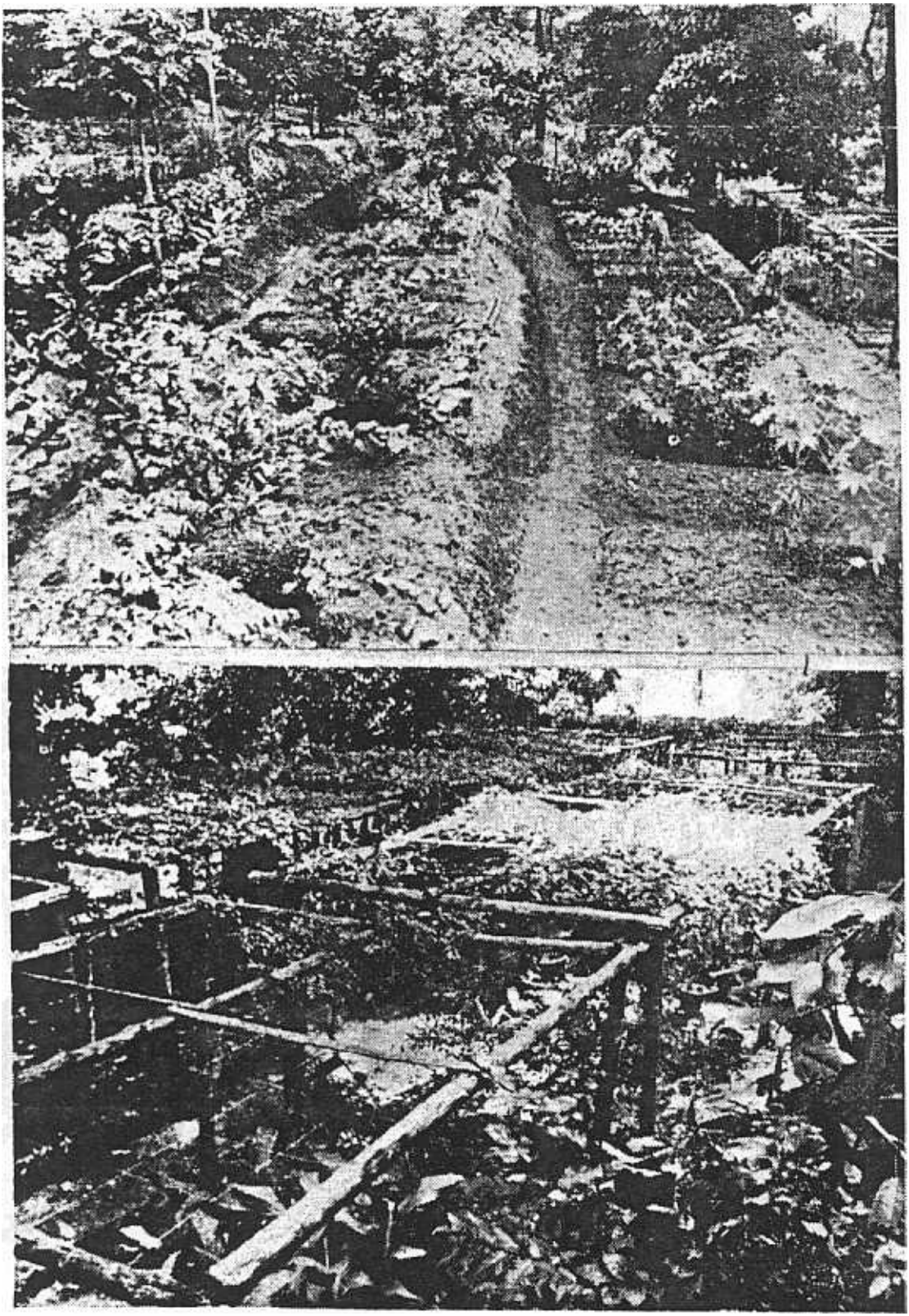

Plate XXIV Medicinal Plant Garden

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Glossary of Medical Terms

Abortifacient — An agent that causes abortion

Acrid — Biting. pungent

Ague — A burning fever

Alexipharmic — Antidote to poison

Alexiteric – Protective to infectious diseases

Alterative — Causing a favourable change in the disordered functions of the body or .metabolism

Amenorrhoea — Failure of menstruation

Amnesia — Partial or total loss of memory

Anaemia — Lack of enough blood causing paleness

Analgesic — An anodyne

Anasarca — Diffused dropsy in the skin and subcutaneous tissue

Anodyne — A medicine that allays pain

Anthelmintic — Destroying or expelling worms

Antiemetic — Preventing vomiting

Antilithic — An agent which prevent the formation of caliculi or promote their dilution

Antiperiodic — Preventing the regular recurrence of a disease

Antiphlogistic --Acting against heat or inflammation

Antipruritic -. Preventing or relieving itching

Antipyretic — Counteracting fever

Antiscorbutic — Acting against scurvey

Antispasmodic — Opposing spasms or convulsions

Aperient -— A laxative or mild cathartic

Aphthae — Ulcer on the surface of a mucous membrane

Arthritis .- Inflammation of a joint

Astringent — Having power to contract organic tissues

Aural — Relating to the ear

Bilious — Affected by or pertaining to bile

Bleb --A collection of fluid beneath the skin

Blennorrhogia — Discharge of mucous

Bubo — Inflammatory swelling of the gland

Cachexia — Depressed habit of mind

Calculus — A concretion formed in any part of the body usually compounds of salts of organic or inorganic acids

Carminative— Drug curing flatulence

Cataplasm — Poultice

Catarrh — Inflammation of a mucous membrane

Cathartic — Having the power of cleansing the bowels, purgative

Cephalalgia — Headache

Chilblains — Itching or burning especially on the fingers, toes, heel. nose and ears on exposure to extreme cold

Cholagogue --A drug which causes increased flow of bile into the intestine

Cicatrice – Scar over a healed wound

Colic --- Relating to the colon

Colon --The division of the large intestine extending from the cecum to the rectum

Conjuctivitis — Inflammation of conjuctiva

Cystitis — Inflammation of a bladder. especially urinary bladder

Demulcent — Soothing

Deobstruent — Relieving or removing obstruction

Deodorant — Removing the odour

Depurative — Puritying

Diaphoretic — Promoting sweating

Diuretic –- Promoting the discharge of urine

Dropsy — An excessive accumulation of clear or watery fluid in any of the tissues or cavities of the body

Dysmenorrhoea — Difficult or painful menstruation

Dyspepsia — Indigestion

Dysphonia — Difficulty or pain in speaking

Dysuria –- Difficulty or pain in passing urine

Ecbolic — Accelerating childbirth

Embrocate – To moisten and rub

Emetic — Causing vomiting

Emmenagogue — Medicine intended lo restore the merises

Emollient — Soltening

Emphysema — Inflation of stomach etc.

Errhine Sternutatory

Erysipelas — An inflammatory disease. generally on the face.marked by a bright redness of the skin

Febrifuge –. That which drives off fever

Febrile — Feverish. relating to fever

Flatulence – Distention of stomach by gases formed during digestion

Galactagogue — Medicine that promotes secretion of milk

Gastralgia — Pain in the stomach

Gieet — Chronic discharge of thin mucous from the vagina

Gravel — Small concretions, usually of uric acid. calcium oxalate or phosphates formed in the kidney

Gripe — A Sharp pain in the stomach

Haematemesis — Vomiting of blood

Haematenia — Presence of blood in the urine

Haemoptysis — Spitting of blood

Haemostatic — Styptic

Hemicrania — Headache confined to one side

Hemiplegia -- Paralysis of one side of the body

Hiccough — A diaphragmatic spasm causing a sudden inhalation which is interrupted by a spasmodic closure of the glottis. producing a noise

Hydragogue — Removing water or serum

Hypochondriasis -- A morbid concern about one's own health and exaggerated attention to any unusual bodily or mental sensations

Ipetigo — A skin diseases characterised by thickly set clusters of pustules

Laxative — Having the action of loosening the bowels

Leucoderma — Absence of pigment in the skin

Leucorrhoea - An Abnormal mucous discharge from the vagina

Lithiasis — The formation of calculus of any kind

Lithontriptic — An agent that effects the dissolution of calculus

Lumbago — Pain in mid or lower back

Micturition — The desire to urenate

Nauseant — An agent that causes nausea

Oleaginous — Oily. greasy

Opacity — An apaque or non.transparent area

Otitis media — Inflammation of the middle ear

Paraplegia — A stroke in one side

Perthisis — Hemiplegia

Pharyngitis — Inflammation of the mucous membrane and underlying part of the pharynx

Phlegmatic — Generating phlegm

Plasy — Loss of control in the muscles of the body

Poultice - A soft mush prepared by various substances with oily or watery fluids

Psoriasis — A condition characterised by the eruption of circumscibed. discrete and confluent-reddish, silvery scaled leisions

Purigo — An eruption on the skin causing great itching

Roborant — A strengthening agent

Rubifacient — An external application that reddens the *skin*

Sciatica — Neurites of the sciatic nerve

Sialaqogue — Anythingthat stimulates the flow of saliva

Slough — Dead tissue in a sore

Soporific -- Inducing sleep

Spermatorrhoea — Involuntary seminal discharge

Sternutatory — Thatcauses sneezing

Stomachic — Anything that is good *for* the stomach.'

Styptic — Astringent, checking bleeding

Strangury — Difficulty in discharg. ing urine

Sudorific — Diaphoretic

Tympanitis — Inflammation of the tympanic membrane

Vermifuge — Drug that expels worms

Vertigo — Dizziness

Vesicant — Blistering

Vulnerary — Useful in healing wounds

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112	22	**Chenopodium ambrosiodies**	**Chenopodium ambrosioides**
114	*22*	Mareedha-valli	Mareecha-valli
184	37	Diploclicia glaucesens	Diploclisia glaucesens
187	19	Mesua ferra	Mesua ferrea
189	14	Qussia indica	Quassia indica
189	15	Randia dumatroum	Randia dumatorum