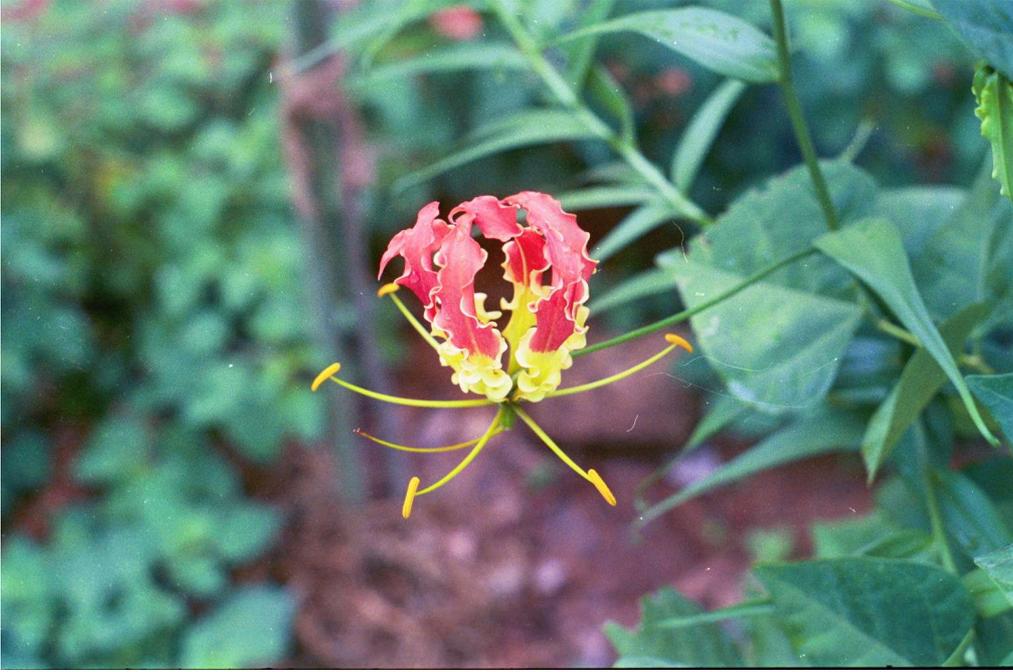


Field Guide to Herbs



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Introduction

This is a compilation of information collected about plant species that occur in the reserve forests lying on the fringes of the Kaundinya Wildlife Sanctuary in the Palamner range of the Eastern Ghats. This data has been acquired from different sources and serves to act as a vegetation guide to trees, shrubs and herbs for those involved in ecological field studies.

In this guide we have provided the scientific names of species as the primary reference, synonyms have also been provided as far as possible. The information of each of these species provides details of the family, habit, habitat and some salient features. Local names (predominantly Telugu) have also been included.

On the left hand corner of the title for each species is provided an index number. This is constituted of the first four alphabets of the family name followed by exclusive numbers for different species and a code for the habit of the plant (T for tree, S for shrubs and H for herbs), e.g.: Anac 1 T, is a plant belonging to family Anacardiaceae, numbered 1, which is a tree. This index number is consistent across the field guides, the herbarium and the seed collection in the germplasm bank in Kaigal hence can be used to refer to any of these with ease.

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Family: Acanthaceae

Acan 1 H

Andrographis lineata

An erect herb.

Leaf: Leaves are rather thick, sub-sessile, ovate to lanceolate in shape, having an acute apex and obtuse base. They are glabrous, up to 3 inches long and 1 inch broad.

Flower: Flowers occur in an inflorescence. The inflorescence is long, forming a rather large compound terminal cluster. The petals are pale and have purple blotches and appear swollen.

Fruit: The fruit is a capsule that is linear or oblong and compressed at right angles. It is 0.8 inches long.

Distribution: It is found distribution in hilly regions of Southern and Peninsular India. It is commonly found at an altitudinal range of 3,000 to 5,500 ft.

Family: Acanthaceae

Acan 2 H

Andrographis serpyllifolia

A trailing and rooting herb, which remains on the ground, it is borne on a stout root stock.

Leaf: The leaf is circular in shape; sub-opposite, sessile and having shaggy long hairs. They measure up to one inch in diameter.

Flower: These are pale with purple blotches on the lower lip. They are found in the upper axils as racemes, sometimes are solitary. Calyx lobes are very slender.

Fruit: It is a capsule, glabrous and acute at both ends. It measures up to 0.4 inches long and 0.2 inches broad.

Distribution: It occurs on the dry soil regions of the Deccan Plateau and in the upland thorn scrub forests. It is adapted to the dry conditions of these regions. These plants are also found in gravely soil.

Family: Acanthaceae

Acan 2 b H

Barlaria prionitis

Telugu: Aduvi mullu kanakambaram

Prickly, variable herb, with yellow or sometimes whitish flowers.

Leaf: These are opposite, elliptic, glabrous with an acuminate apex. They are often pubescent beneath. They measure up to 7 inches long and 2.5 inches broad.

Flower: Is sessile, solitary in lower axils and spiny above. The bracts are oblong and spiny.

Fruit: Is a capsule, ovoid with a solid beak. Two seeds present.

Distribution: It is found distributed in the Deccan Plateau.

Uses: Flowers are cultivated for commercial marketing.

Family: Acanthaceae

Acan 3 H

Crossandra infundibuliformis

Telugu: Aduvi kanakambaram

A tall herb bearing orange or yellow flowers.

Leaf: Leaves are opposite or whorled, sometimes slightly toothed.

Flower: They are sessile and yellow in colour.

Fruit: Is an oblong acute capsule with four seeds.

Uses: Flowers are cultivated for commercial marketing

Family: Acanthaceae

Acan 4 H

Justicia simplex

Telugu: Bundaval

A pale, softly hairy, herbaceous, branching plant. Branching is of an angled or zigzag pattern.

Leaf: Is ovate, up to about one inch long.

Flower: They are sessile, rarely solitary with long corolla tube. They are pale pink or lilac in colour.

Fruit: It is an ovoid capsule often papery. The apex has long fine hairs.

Distribution: Found in hilly regions up to 7000 ft. from mean sea level in the Deccan Plateau and the Western Ghats.

Family: Acanthaceae

Acan 5 H

Lepidagathis cristata

Telugu: Peblu manda

A stiff herb with its branches spread on the ground. Branches arise from a hard central root stalk.

Leaf: They are linear, oblong and nearly glabrous up to 1.25 inches long and 0.25 inches broad.



Flower: Flowers are sessile, sometimes with occasional globose, small heads of flowers in the axils. Corolla is white, spotted with brown and purple.

Fruit: It is a compressed, conical or oblong capsule with 2 to 4 flattened hairy seeds.

Distribution: Found in dry places and on rocks. It is widely distributed throughout the country.

Uses: The plant is used as a bitter tonic in fevers. It is also applied to itchy affections of skin. The leaves are used as fodder for livestock.

Family: Acanthaceae

Acan 6 H

Ruellia tuberosa

Telugu: Erra verulu

It is a herb that is often grown as an ornamental plant. It has tuberous roots.

Leaf: These are arranged opposite, they are entire and marked with fine lines.

Flower: Sessile, sometimes solitary or in clusters with large bracteoles exceeding the calyx. Corolla is tubular with unequal lobes.

Fruit: It is a club shaped capsule which is solid at the base with large, thin, discoid seeds.



Distribution: It is native to Tropical America and has been introduced and established even in the wild in our country. It is found in distributed in dry and hilly regions.

Uses: Plant has emetic properties and is used as a substitute for ipecacuanha. It is also used for treating bladder stones. The decoction of leaves is used to cure chronic bronchitis. Locally the tuberous roots are used as an ingredient in a health tonic.

Family: Achyranthaceae

Achy 1 H

Achyranthes aspera

Telugu: Uttareni



An annual erect herb having a square stem.

Leaf: Few in number. They are entire, either elliptic or obovate in shape. They are rounded and hairy.

Flower: The flowers are greenish-white, many, stiffly deflexed against the rachis in an elongated, terminal, long spike.

Fruits: Cling on to the body of animals with the help of the perianth and spinous bracteoles that surround it. Dispersed by animals in this manner.

Distribution: A common weed on wastelands everywhere.

Uses: It is very useful in treating dropsy, piles, boils and colic in children. It is also used as a cure for cough. The seeds and leaves are used in hydrophobia and on insect bites.

Family: Amaranthaceae

Amar 1 H

Aerva lanata

(Syn: *Achyranthes lanata*)

Telugu: Pindi

They are tomentose, prostrate herbs, branching from the root stock.

Leaf: The leaves are alternate, entire, and elliptic in shape. The leaf tip is obtuse or acute. It is pubescent above and white woody beneath, up to 1 inch long.

Flower: The flowers are bisexual, minute, in small dense greenish white heads or spikes under 0.5 inches long. The spikes are axillary in location and are sessile.

Fruit: The fruit is an utricle, which is thin walled and compressed. It is one seeded and observed to burst irregularly.

Distribution: It is common in dry wastelands throughout India. Known to occur in the plains and up to about 3000 ft. in the hills.

Uses: The plant is known to have antihelminthic and diuretic properties. The root is used as a demulcent, diuretic and to treat headaches.

Family: Amaranthaceae

Amar 2 H

Allmania nodiflora
(Syn: *Celosia nodiflora*)

Telugu: Erra baddi aaku

A straggling, much branched herb with stout root stalk.

Leaf: They are variable in size, alternate, sessile or shortly petiolate, entire and elliptic or obovate in shape.

Flower: They occur in heads, usually sessile, brown in colour, globose. The flower heads usually measure 0.5 inches in diameter. The flowers are bisexual.

Fruit: The fruit is a pyxis. It has a somewhat globular, membranous, sac-like structure. It has a compressed seed.

Distribution: Found distributed in the Deccan Plateau and in coastal regions.

Uses: The leaves are edible and locally consumed in their diet.

Family: Asclepiadiaceae

Ascl 3 b H

Hemidesmus indicus
(Syn: *Periploca indica*)

Telugu: Sugandra paal

A much twining and wiry plant.

Leaf: Leaves are opposite in whorls of 4, that is polymorphous varying from elliptic or almost elliptic to long linear and narrow.

Flower: Flowers are small, greenish purple in colour, occurring on sessile cymes. Lobes are fleshy.



Fruit: Fruits are slender follicular structures enclosing the fruit measuring up to 8 inches in length.

Distribution: Commonly distributed in the open forests and waste lands. It is found from the upper Gangetic plain eastwards to Bengal and from Madhya Pradesh to South India.

Uses: The roots are used in a health tonic preparation. They are known to have diuretic, diaphoretic and demulcent properties.

Family: Asclepidiaceae

Ascl 4 H

Pergularia. daemia
(Syn. *P. extensa, Daemia extensa, D pergularia*)

Telugu: Tatavaku

A perennial twiner with milky latex. It is hairy, bad smelling having rough hairs on the stem.

Leaf: The leaves are opposite, ovate, cordate and thin.

Flower: The flowers are greenish-yellow and lateral in position. They have small bracts. The flowers are bell-shaped. Flowers bloom from August to January.

Fruit: Fruits are recurved, lanceolate follicles, covered with soft spines.

Distribution: It is found throughout the hotter parts of India.

Uses: The plant is pungent and cooling. It is used to cure ulcers, eye problems, urinary discharges and leucoderma.

Leaves and flowers are edible. Juice of leaves is used in catarrhal affections, infantile diarrhoea, given in asthma, applied to rheumatic swellings. It is also used for snake bite. Plant extract is used for uterine and menstrual troubles.

Family: Asclepiadiaceae

Ascl 5 H

Sarcostemma acidum
(Syn: *S. brevistigma*)

Telugu: Pullangi teege

These are trailing, leafless, jointed stems and pendulous branches.

Flower: These are small, sessile, terminal umbels with white or yellow flowers.

Fruit: It is like a follicle. A portion of the fruit splits away and simulates a perfect fruit.

Distribution: Distributed in dry forests in peninsular India.

Uses: This plant is used as an insecticide, to destroy white ants from sugar cane fields.

Family: Asteraceae

Aste 1 H

Blumea spp.

These are glandular, pubescent, woolly or glabrous usually aromatic herbs.

Leaf: Leaves are alternate, usually toothed or lobed.

Flower: Occur in heads.

Fruit: Is an achene. Achenes are small hard indehiscent and one seeded.

Distribution: Common in dry deciduous forests.

Family: Asteraceae

Aste 2 H

Kleinia grandiflora

Telugu: Kokanaleka

Family: Asteraceae

Aste 3 H

Spilanthes calva
(Syn: *S. acmella*, *S. paniculata*)

Telugu: Vana mogili

An erect usually pubescent herb.

Leaf: Leaves are opposite, are ovate in shape, with rounded teeth (crenate) measuring up to 1-2 inches long.

Flower: Flowers occur in an inner wrapping (involucre) that is short and ovoid. Flowers are small, white or yellow in colour. The flower heads when chewed have a hot burning taste.

Fruit: Fruits are achenes, nearly glabrous.

Distribution: A common herb distributed throughout India, seen on plains and also ascending on hills.

Uses: Leaves are chewed to relieve tooth ache and affections of throat and gums. Tincture made from flower heads is reported to be used to treat inflammations of jaw bones and caries. Plant boiled in water is given to cure dysentery. An ether extract of fresh flower heads is effective against *Anopheles* mosquito larvae.

Family: Asteraceae

Aste 4 H

Vicoa indica

Telugu: Katti yellu

Annual or perennial herb. An erect plant with bright yellow flowers.

Leaf: The leaves are sessile, alternate, entire or toothed, lanceolate or oblong.

Flower: Occur in yellow coloured inflorescence. The upper heads are heterogamous and rayed or homogamous and not rayed. Flowers are solitary, terminal or on leaf opposed peduncles. Ray florets are female, fertile. 1-2 striate disc florets are bisexual and many are fertile.

Fruit: Are small achenes

Distribution: Common in the under growth of deciduous forest.

Family: Asteraceae

Aste 5 H

Xanthium stramonium
(Syn: *X indicum*)

A coarse annual herb.

Leaf: Leaves are alternate, triangular-chordate in shape, often 3 lobed and irregularly toothed.

Flower: Flowers occur in a wrapping. The corollas are tubular, 5 lobed and very thin. The bracts comprise of hooked bristles.

Fruit: Fruits are achenes and are covered with hooked spines.

Distribution: It is widely distributed everywhere in India. It is found in plains and also near habituated areas.

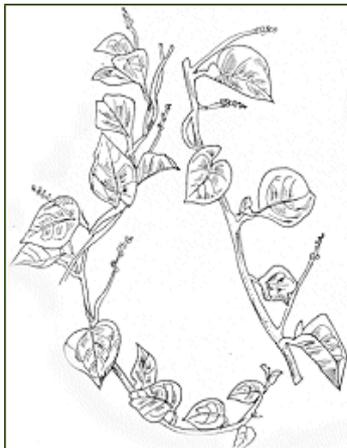
Uses: It is used as an organic manure. It is also reported to be used to treat chronic malaria and urinary troubles. Seed oil is edible and used in various industries. The fruits are rich in Vitamin C.

Family: Basellaceae

Base 1 H

Basella alba

Telugu: Baaya bachali teege



A glabrous, succulent, climbing, perennial herb with light or red branches.

Leaf: Simple, petiolate, broadly ovate in shape.

Flower: White or red in colour; arranged in the form of a spike.

Fruit: Fruits are the size of a pea. They can be black or white in colour.

Distribution: The plant is cultivated as well as found wild almost throughout India.

Uses: The stem and leaves are reported to have medicinal uses. They are used against constipation, flatulence, haemorrhages, sleeplessness, leprosy, ulcers, dysentery and general debility. They are especially useful as a laxative for children and pregnant women.

The tender stems and herbs are edible and can be consumed as wholesome spinach. The sap from the fruit is used to colour food.

Nursery notes: It grows well in warm and humid climate. Occasional rainfall is beneficial to this crop. It does well in loam and heavy loam soil and thrives best in well drained soils.

Propagation: It can be propagated using seeds. Seeds can be sown by broadcasting between mid January and mid March for the summer crop. Similarly they can be sown by dibbling between the months of mid April to mid June for the rainy season crop. Compost or Farmyard Manure should be applied before sowing and two weeks after sowing.

Transplanting and After Care: Seedlings are ready for transplanting after 80 – 90 days. Weeding is done once or twice during the early stages of growth. Stalking is beneficial for this crop. Irrigation is provided as and when required.

Comm 1 H
Family: Commolinaceae
Cyanotis tuberosa
(Syn: *Tradescantia tuberosa*)
Telugu: Eggogala gadda

It is a prostrate erect terrestrial herb, roots usually tuberous, the stem bears long distinct hairs.

Leaf: Leaves are linear to broad shaped like a sword. It has an acute or acuminate apex. It is narrow at the base, has long weak silky hairs and is purple in colour.

Flower: Flowers occur in long, peduncled, hairy cymes. The flowers are blue or bluish purple in colour.

Fruit: Fruits are capsules that are hairy upwards. The seeds are pyramidal in shape.

Distribution: It is a fairly well distributed, the plant occurs near the coasts and up to a height of 7,000 feet from mean sea level in the southern part of the Deccan Plateau

Uses: The tuber is used as a remedy for an insect bite.

Conv 1 H
Family: Convolvulaceae
Ipomea illustris
Telugu: Bodakuraaku

Conv 2 H
Family: Convolvulaceae
Ipomea obscura
Telugu: Adavi kakara

It is a slender climbing herb, twining or creeping.

Leaf: Alternate, simple, cordate, entire, acute, 5-8 cm by 6-9 cm, having a petiole.



Flower: Occurs as inflorescence. The flower is bisexual, having a pedicel 1-2 cm long. It has 5 sepals and 5 petals, the corolla is funnel shaped, 2 - 3 cm long, white or light yellow in colour and deep red-purple in the middle.

Fruit: The fruit is ovate in shape and 6 x 8 mm in size. The seed is small and black, 3-5 mm in size.

Distribution: Occurs commonly in the plains and in grasslands.

Family: Convolvulaceae

Conv 3 H

Ipomea spp.

Telugu: Teel teege



Uses: This is an ingredient in a remedial mixture for body heat, stomach ache and is a general tonic.

Family: Crassulaceae

Cras 1 H

Bryophyllum spp.

Telugu: Saraswathi

Family: Crassulaceae

Cras 2 H

Kalanchoe spp.

Telugu: Aduvi gobbalu

Family: Dioscoreaceae

Dios 1 H

Dioscorea pentaphylla
(Syn: *D. digitata*, *D. triphylla*, *D. jacquemontii*)

Tel: Adavi genasu teege
Tam: Chedukundi vallai kodi
Mal: Nuran

Climbing herbs, rarely erect. Roots are tuberous, white, oblong or very diverse in different varieties. Stem is slender, prickly towards the base, glabrous, often bearing axillary bulbils.

Leaf: Petioles 2-5 inches long, leaves simple, round-ovate in shape, often glabrous, 2.5 to 7 inches long and 1-4 inches wide.



Flowers: Occur as an inflorescence and are unisexual. Flowers are arranged on long slender axillary or terminal panicles. They are greenish and fragrant.

Fruit: Is a capsule, oblong, glabrous, up to 1 inch long.

Distribution: Occurs throughout India.

Uses: The tuber is edible and is said to have high nutritive value.

Family: Euphorbiaceae

Euph 4 H

Croton bonplandianum

Telugu: Kusum paal



Uses: The seeds are powdered and mixed with Neem (*Azadiracta indica*) oil and is used in treating boils on head in children. This plant has a clear yellow sap which is locally used to treat cuts and wounds.

Family: Euphorbiaceae

Euph 5 H

Euphorbia fusiformis
(Syn: *E. acaulis*)

Telugu: Sepu gaddalu

A dwarf unarmed glabrous herb with copious milky usually acrid juice. Stems not developed above ground, tuberous, stout and cylindrical 6-18 in. or more long.

Leaf: The leaves are opposite; grow up to 9 inches or more in length, few in number.

Flower: Occur in an inflorescence, is an involucre. Flowers bloom during the hot season.



Fruit: Fruits are capsules, they are glabrous and bear smooth ovoid seeds.

Distribution: Found in Southern India.

Uses: The tuber is used in feed for cattle to increase milk yield. The leaves are given to lactating mothers who have difficulty in producing milk.

Family: Euphorbiaceae

Euph 11 H

Phyllanthus virgalus

Family: Euphorbiaceae

Euph 13 H

Tragia involucrata

Telugu: Kamachakra teege

An evergreen climbing hispid herb with stinging bristles.

Leaf: The leaves are alternate, simple, broadly ovate, and abruptly acuminate; it is variable in foliage and the leaves are rather thick.

Flower: Flowers are unisexual. The male and female flowers occur separately on terminal or leaf opposed racemes.

Fruit: Fruit is a capsule. It has a persistent calyx which have 4-6 pairs of short rough haired teeth.

Distribution: The plant is found distributed in the Deccan Plateau.

Family: Gentianaceae

Gent 1 H

Exacum pendunculatum

An erect, annual reaching up to height of 12-18 inches. Herbs that sometimes becomes shrubby and much branched.

Leaf: The leaves are opposite, entire, usually 3 or more ribbed. Leaves are sub-sessile, elliptic or lanceolate, growing up to 2.5 inches long and 0.5 inches broad.

Flower: Flowers are blue or lilac, occurring in usually discoid cymes. Calyx deeply lobed, corolla has small lobes that are less than 0.3 inches long. Flowers are tetramerous.

Fruit: A globose, septicidally 2 – valved capsule with many seeds. Testa is granular.

Distribution: Found in the plains, grasslands, moist regions and up to about 3,000 feet in the hills.

Family: Hypoxidaceae

Hypo 1 H

***Curculigo orchioides* (Syn: *C. malabarica*, *C. brevifolia*)**

Telugu: Aduvi thati gadda

These are stemless, perennial herbs with a tuberous elongate rootstock.

Leaf: Leaves are glabrous, variable in size, lanceolate with an acute apex.

Flower: Flowers occur solitary or in racemes on a short one leaved floral axis or directly from the root.

Fruit: Fruit is succulent and ovate measuring up to 1 inch long.

Distribution: It is distributed in the subtropical Himalayas, Khasi Hills southwards to Peninsular India. It is seen up to a height of 7,500 feet from mean sea level.

Uses: The black root is known to be ground and eaten like flour. Locally the tuber is used as an ingredient in a health tonic preparation.

Lami 1 H

Family: Lamiaceae

Coleus amboinicus
(Syn: *C. aromaticus*)

Telugu: Kapparalli

A rather large succulent very aromatic, hairy herb.

Leaf: Leaves are opposite, thick, fleshy, covered with dense rough hairs, it is broadly ovate.

Flower: Flowers occur in dense whorls at distant intervals on a slender raceme. They are small and pale purple in colour

Fruit: Fruits are ovoid nutlets 4 in number

Distribution: Found wild in the Deccan Plateau. It is also widely cultivated.

Uses: Used for flavouring drinks and in medicine.

Lami 2 H

Family: Lamiaceae

Hyptis suaveolens

Telugu: Nimma tulasi



It is an annual or biennial herb; 1-2 m. tall, hairy, viscid, with essential oil. Twig cross section is a quadrangle.

Leaf: The leaves are opposite, simple, ovate, and serrate. They have an acute apex and cordate base. They are hairy and 3-6 x 8-9 cm in size.

Flower: Occur in an axillary, cymose inflorescence. They are bisexual, irregular, 2 lobed, small and 2-3 mm by 3-5 mm in size. They are purple in colour.

Fruit: Indehiscent, small, with 4 seeds. Seeds are small and black

Distribution: Occur in most plain regions introduced from Tropical America and has run wild.

Uses: The decoction of roots is useful as an appetiser and stomachic; its shoot tips are used for flavouring. The infusion of leaves is drunk as a beverage. The leaf juice is used to treat stomach ache and colic.

Family: Lamiaceae

Lami 3 H

Leonotis nepetaefolia



A tall erect, loosely branched annual, it can get upto 8 ft. tall in a single growing season. The stem is strongly angled (square in cross section)

Leaves: Leaves are in pairs opposite each other. The leaves are smooth with coarsely toothed margins, triangular in shape and 2-5 inches long. The leaves are hairy and narrow and run into the petiole. The petiole in itself is winged in the upper part and narrow.

Flowers: The flowers are borne in rounded, spiny clusters, 2-4 inches across that encircle the stems so that it looks like the stems are growing right through the middle of the clusters. As the stems elongate, new flower clusters continue to develop above the older ones. The tubular flowers that peek out of the spiny heads are 2 lobed, orange and furry. The flowers are about an inch long and curve downward. They are known to flower during October – November.

Distribution: This plant was originally native to tropical and subtropical Africa, as are the 30 other species in the genus. However, it is now naturalized all over the world in appropriate climates, where it grows along road shoulders, in abandoned fields and in disturbed areas. It mainly grows in areas already highly disturbed, or where the original vegetation has been destroyed, and it doesn't seem to displace native species.

Uses: The flower heads are mixed with curd and applied to ringworm and other itchy diseases of the skin. The seeds are reported to possess antimalarial properties.

Nursery notes: These plants can grow in conditions of full sun to intermittent shade. It is known to grow rapidly and vigorously with regular watering, but still hangs on during drought. It is easy to grow from seed, and under favorable conditions will self sow.

Family: Lamiaceae

Lami 3 b H

Leucas aspera

A coarse erect diffusely branched annual it has a quadrangular stem with dense rough hair.



Leaf: Leaves are whorled, linear or oblong-lanceolate and having an obtuse apex. The margin is slightly serrated or entire. It is pubescent.

Flower: Flowers are white in colour occur in dense whorled inflorescence that is terminal. The lower lip of the flower is twice as long as the upper lip and has dense rough hair.

Fruit: Fruit is an ovoid dry nutlet.

Distribution: The occurs commonly everywhere, widely distributed, occurs up to a an altitude of 3,000 feet.

Uses: The flowers are mixed with honey and used to treat cough and cold. Alcoholic extract of the leaves are shown to have antimalarial properties.

Family: Lamiaceae

Lami 4 H

Orthosiphon glabaratus
(Syn: *O.tomentosus*)

Telugu: Taduku

An erect herb reaching up to a height of 2 feet. It has a woody root stock.

Leaf: Leaves are opposite, broadly ovate with a variable apex, it is nearly glabrous.

Flower: Flowers occur in terminal racemes. They are pale purple in colour and are medium sized.

Fruit: Fruits are nutlets, epsilloid in shape.

Distribution: It is found chiefly in dry open forests in Orissa, Gujarat and whole of South India.

Uses: A decoction of the plant is given to cure diarrhoea and piles. A decoction of the leaves cures fevers. Leaves are applied to cuts and wounds. Locally the sap of this plant is used to cure eye diseases.

Family: Leguminosae
Sub family: Papilionaceae

Legu 30 H

Rhynchosia cana

Telugu: Aduvi Ulava

Family: Leguminosae
Sub family: Papilionaceae

Legu 32 H

Tephrosia purpurea
(Syn: *T. procumbens*)

Telugu: Empili

It is a slender, herbaceous, perennial plant with white flowers.

Leaf: The leaves are compound, imparipinnate, sometimes reduced to one leaflet. Side leaflets are opposite, usually numerous, all leaflets are parallel nerved, usually silky beneath and lanceolate in shape. Stipules are free from the petiole; sometimes reduced to spines.

Flower: Reddish or white in colour, terminal or leaf opposed racemes or solitary or in pairs in the axils of the leaves. They are bracteate and have clawed petals.

Fruit: Is a pod, 9-12 seeded. Seed irregularly trapezoidal with a bony testa.

Distribution: Distributed in most parts of the country in open forests and in barren lands among grass.

Uses: Smoke from the burning powered leaves are used for relief form asthma and cough. Leaves also yield a dye. It is also grown as a green manure plant.

Family: Liliaceae

Lili 2 H

Chlorophytum spp.

Telugu: Shankadalli gadda



These are perennial herbs with fascicled roots, often thick, fleshy and tuber like.

Leaf: Leaves are radical clustered.

Flower: Flowers are racemose.

Fruit: Fruit is a capsule.

Uses: Leaves are used to remove boils from the armpits.

**Family: Liliaceae
(Colchicaceae)**

Lili 3 H

Gloriosa superba

**Common name: Glory lily
Telugu: Gowramma gadda**

It is a climbing herb. The branchlets are glabrous. The root stock is tuberous, cylindrical, fleshy, forked, white, fibrous roots.



Leaf: The leaves are sessile or nearly so. They are alternate, rarely opposite. The margin is entire, linear to ovate-lanceolate in shape and apex is tapering.

Flowers: The flowers are bisexual, axillary, solitary or sub-corymbose at the end of branches. The perianth lobes are yellow passing through orange and scarlet to crimson

with crispy wavy margins.

Fruits: The fruit is a capsule that is linear-oblong in shape. It splits by 3 valves. Seeds are numerous, globose with warty projections. The seeds are straw coloured.

Distribution: It is found throughout tropical India.

Uses: Root tubers and seeds are rich sources of colchicines. The tubers are reported to have abortifacient, antipyretic, anti-inflammatory and antileprotic properties, and are used to treat leprosy, parasitical affections of skin, piles, gout, rheumatism, promoting labour pain and expulsion of placenta. The seeds are reported to be used as a precursor raw material for the manufacture of drugs for gout.

Nursery notes: This species needs light soil and plenty of moisture. It is susceptible to frost. Grows successfully in red or black loamy soils with water holding capacity and good drainage. Soil pH should be ideally between 6 and 7. It comes up well in warm humid regions up to an elevation of 600 m and annual rainfall of about 375 cm well distributed throughout the year. It can be propagated both by seeds and vegetative means.

Seed propagation: Fresh seed are collected during October and soaked in water for 24 hours and sown in beds. Germination takes about 20 to 30 days and germination success of about 50% is seen.

Vegetation propagation: Vegetative propagation is through tubers. Tubers with at least two eye buds weighing not less than 50-60 g are planted horizontally 6 to 8 cm deep in furrows (opened at 60 cm apart) and at a distance of 45 cm. Red or black loamy solid with medium water holding capacity and a pH range of 6 to 7 are suitable. The ideal planting season is between March-April. The dormant tubers start sprouting from the month of May till August. Irrigation at an interval of 4 days in the early stages and later at weekly intervals is essential.

Threat Status: The Red List Status of this species has been assessed as “Vulnerable” for both Karnataka and Kerala, whereas “Lower Risk-least concern” for Tamil Nadu.

Lili 4 H

Family: Liliaceae

Sansiviera roxburghiana
(Syn. *S. zeylanica*)

Common: Mother-in-law’s tongue
Telugu: Joga

A stemless rootstock, creeping in nature, usually fleshy herbs

Leaf: Leaves are linear and deeply concave, channelled and keeled to the back and tapering to a stout sharp tip



Flower: About 4 occur in a cluster, white in colour; the pedicels are jointed in the middle.

Fruit: Fruit is enclosed in a membranous mericarp.

Distribution: A herb occurring wild on the eastern coast of India, from West Bengal to Tamil Nadu.

Uses: The fibre obtained from succulent leaves is used for mats and cordage.

Nursery notes: It grows easily in almost all kinds of soil. It is propagated from root suckers. It does not tolerate too much water.

Lili 5 H

Family: Liliaceae

Un-identified

Telugu: Kalabandam

Lora 1 H

Family: Loranthaceae

Dendrophthoe falcate
(Syn: *Loranthus falcatus*)

An evergreen, leafy parasite. Found on a great number of hosts.

Leaf: Leaves are linear or shaped like a sickle.

Flower: Flowers are scarlet orange or pink in colour.

Fruit: Fruits are pink berries.

Distribution: Occurs chiefly in the plains and dry regions frequently on *Acacia* and its neighbours

Uses: The young shoots contain tannin.

Family: Loranthaceae

Lora 2 H

Viscum articulatum
(Syn: *V. ramosissimum*)

Telugu: Bajan eke

A leafless slender parasite found on various species of deciduous trees.

Leaf: Leaves are reduced to small flat scales.

Flower: Flowers occur in axillary fascicles of 1-3.

Fruit: Fruits are berries, globose in shape and are glassy white in appearance.

Distribution: It is found distributed throughout India.

Uses: A paste of the plant is applied to wounds.

Family: Lythraceae

Lyth 1 H

Rotala indica
(Syn: *Ammania peploides*, *Ameletia indica*)

An extensively rooting much branched herb.

Leaf: Leaves are opposite and entire; they could be sessile or sub-sessile. They are obovate, spatulate and thickly marginate.

Flower: Flowers are small occurring on racemes or on umbels.

Fruit: Fruits are capsules that are 3-4 valved they enclose minute ellipsoid seeds that are flat on one side.

Distribution: Widely distributed in the hills up to an altitude of 2,000 feet. Found in wet places. Often found near rice fields.

Family: Malvaceae

Malv 1 H

Pavonia spp.



Small herbs or shrubs.

Leaf: The leaf is sub-entire, dentate, angled and lobed.

Flower: Flowers are solitary, axillary or in terminal racemes.

Family: Malvaceae

Malv 2 H

Sida glutinosa

(Syn: *S. mysorensis* *S. urticaefolia*)

Telugu: Jiddu

A weed plant, pubescent with simple hairs; the stem of the plant is trailing and the branches are stoutish.

Leaf: Leaves are toothed, glutinous (sticky) simple and has stellate hairs.

Flower: White or yellow, small flowers that occur on pedicels.

Fruit: Fruits are depressed-globose, enclosed in the calyx.

Distribution: Having widespread distribution.

Uses: Plants are fibre yielding.

Family: Menispermaceae

Meni 1 H

Cocculus hirsutus

(Syn. *C. vilosus*, *Menispermum hirsutum*)

Telugu: Dusara teege



A straggling, scandent twiner. Young parts are full of long weak, hairs. Branches are marked with grooves or ridges. It is found commonly among hedges.

Leaf: Ovate-oblong in shape, the tip is obtuse with a sharp short point. The base of the leaf is sub-cordate. There are soft hairs found on both sides of the leaf. The petiole is also very hairy.

Flower: Flowers are unisexual. Male flowers appear first in December as small axillary panicles on slender stalks. The females appear later in axillary clusters of 2 -3.

Fruit: The fruit is a drupe; it is about the size of a small pea. It is keeled and transversely wrinkled. The seeds are horse-shoe shaped.

Uses: The leaves and roots are used to allay irritation. The plant is used to treat fever and rheumatism. The juice of the leaves is taken internally as a cure for gonorrhoea. Locally the plant is used as a substitute of twine to bind things together.

Family: Nyctaginaceae

Nyct 1 H

Commicarpus chinensis

(Syn: *Boerhavia chinensis*, *B. repanda*, *Valeriana chinensis*)

Telugu : Achiram gadda

Diffuse, often straggling, slender, glabrescent annual herbs.

Leaf: Leaves are opposite, sub equal in each pair, penninerved. They are ovate in shape with an acuminate apex, 7.5 x 5.5 cm in size.

Flower: Occur in umbrellae shaped 3 – 8 flowered clusters. Perianth is 1.2 cm long, pink and constricted below the middle. It is tubular and ribbed.

Fruit: Fruit is an anthocarp, which is club shaped, glandular and 10 ribbed.

Distribution: It is very commonly distributed all over India. Often seen in dry regions.

Uses: A paste of the fruit is used in local medicine to cure ulcers in the stomach.

Family: Orchidaceae

Orch 1 H

Geodorum spp.

Telugu: Domma gaddalu

These are terrestrial herbs with tuberous rootstalk.

Leaf: Leaves are elliptic with an acute apex.

Flower: Flowers are borne on crowded decurved racemes.

Distribution: The plant is distributed in all places from 200 up to 3,000 feet from mean sea level.

Family: Plumbaginaceae

Plum 1 H

Plumbago zeylanica

Telugu: Chitra moolam



A rambling, subscandent perennial under-shrub. Stem angled, branchlets striate and glabrous.

Leaf: Alternate, entire, petiole often auricled at base.

Flower: The flowers occur in terminal elongated spikes. They are white in colour.

Fruit: The fruit is a globose capsule. Has a solitary seed.

Distribution: This is found to occur in the tropical and subtropical regions.

Uses: The roots of this plant are reported to be used to treat piles, diarrhoea, and skin diseases. Paste of the roots is supposed to be applied for opening abscesses. Infusion of the root is used to treat influenza and black water fever.

Nursery notes: It can be propagated by seeds, vegetative means and tissue culture.

Seed propagation: Fresh seeds soaked in water for 24 hours are dibbled in polythene bags filled with a mixture of sand, red earth and manure in a 1:1:1 ratio. Germination of about 70% occurs over 7–12 days.

Vegetative propagation: Through cuttings: Semi-hardwood cuttings of 15 – 20 cm long are used as planting material. 70-80% of the cuttings sprout within 12 – 16 days.

Tissue culture: Nodes are used as explants. Shoot and root formation occur in 40 to 45 days when cultured in Murashige and Skoog medium supplemented with Indole Acetic acid, Naphthalene Acetic acid and Indole Butyric acid mixture at 1 to 3 mg/litre.

Family: Polygalaceae

Pog1 1 H

Polygala chinensis

(Syn: *P. arvensis*, *P. rothiana*, *P. tranquebarica*, *P. telephioides*, *P. brachystachya*)

Telugu: Tela pesala

It is a herb distributed throughout India and the Andaman islands. These are a little woody at the base.

Leaf: Leaves are alternate.

Flower: Flowers are yellow in colour and borne on dense racemes that are less than 1 inch long.

Fruit: Fruits are capsules that are two celled.

Distribution: It is present in dry places up to an altitude of 3,000 ft from mean sea level.

Uses: Leaves are used as treatment for asthma, chronic bronchitis, and catarrhal affections. Roots are used against fever. The leaves are eaten.

Family: Polygonaceae

Pogn 1 H

Polygonum chinense

A rambling plant found often as an undershrub.

Leaf: Leaves are variable in shape and size, although plants with elliptic leaves are more commonly found. They have an acute or short acuminate apex and an entire margin.

Flower: Flowers are white or pink in colour and are minute, they are borne on panicle racemes.

Fruit: Fruit is a compressed nutlet.

Distribution: Occurs in the Western Ghats up to a height of 3,000 feet; scarce in the Deccan Plateau. It is cultivated due to its ornamental flowers hence acquiring a widespread distribution.

Sapi 2H

Family: Sapindaceae

Cardiospermum halicacabum

Telugu: Buddakakara



Annual and sometimes perennial, tendril bearing herb. Branches are slender and furrowed.

Leaf: The leaves are deltoid or ovate, coarsely cut and serrated.

Flower: Flowers occur as racemes with two opposite tendrils. They are white in colour and have 4 petals each. Flowering occurs throughout the year.

Fruit: The fruit is a capsule, 3 celled with large black seeds. The seeds have a heart shaped hilum.

Distribution: It is recorded in the tropical and subtropical regions growing up to 1300m in the Himalayan region.

Uses: The root, leaves and seeds of this plant are medicinally used. It is reported to have a sedative effect on the central nervous system. The root is reported to be used for treatment of fevers, arthritis, amenorrhoea and lumbago. Leaves are considered to be rubefacient and good for arthritis. The leaf is also edible. Seeds are used as a tonic and also for treating arthritis and fever. Locally the seed is used as a laxative and dewormer.

Nursery notes: It can be propagated using seeds. Fruits can be collected in July – November. Fresh seeds are sown directly into polybags or beds and germination is completed within 8 – 12 days. About 80% germination is observed.

Family: Scrophulariaceae

Scro 2 H

Bacopa monniera

(Syn: *B.monniera*, *Herpestis monniera*, *Moniera cuneifolia*)

Sanskrit: Bhrami

Telugu: Sambrani Chettu



A succulent herb, stem creeping and branches ascending. It is found near flowing water bodies, along streams and canals.

Leaf: Sessile, fleshy, ovate or oblong in shape and rounded at the apex.

Flower: Pale pink, solitary and axillary in position.

Fruit: The fruit is a capsule, which is ovoid or oblong. Seeds are oblong.

Uses: The plant is reported to be useful in treating biliousness, inflammations, epilepsy, insanity, tumour, ulcers, flatulence, constipation, asthma, bronchitis, skin diseases, leprosy, leucoderma, sterility, fever and general debility.

Nursery notes: Prefers marshy open fields. Suitable to humid climates. Applying lime is found to be beneficial for optimum growth. Can tolerate salinity to some extent.

Vegetative Propagation: Whole plant can be cut into small units with 4 -6 nodes each and used for propagation. Cuttings are soaked in slurry to hasten rooting.

Family: Sterculiaceae

Ster 1 H

Waltheria indica

Telugu: Ganimi eru



It is an annual herb. It is 30-75 cm. tall and hairy.

Leaf: Alternate, simple, having a crenate & undulate margin and an acute-round apex, 3-4 x 5-7 cm in size.

Flower: The flowers occur as short cymose inflorescence. Flowers are yellow, simple, bisexual, complete, 2-3 x 3-4 cm, pedicel approximately 2-3 mm long, epicalyx present.

Fruit: The fruit is a capsule having many seeds.

Distribution: It is common in the scrub and deciduous forests of India.

Family: Verbenaceae

Verb 2 b H

Stachytarpheta indica
(Syn: *S. urticaefolia*)

Tall herb with very long stout spikes.

Leaf: They are opposite and toothed, elliptic –ovate in shape, with obtuse or acute apex. Measures up to 4 inches long and 1.5 inches broad. It is nearly glabrous.

Flower: These are blue in colour, borne on long, slender spikes. Flowers are glabrous, measuring up to 0.1 to 0.5 inches in diameter.

Fruit: Cylindrical and enclosed in the calyx tube.

Distribution: It is a native of tropical America but has been introduced and become naturalised in India. Occurs in the hills of the Deccan Plateau.

Vita 2 H

Family: Vitaceae

Cissus vibjinea

Telugu: Dagapendra gadda

Vita 3 H

Family: Vitaceae

Vitis quadrangularis
(Syn: *Cissus quadrangularis*)

Telugu: Nelleri



A much rambling plant with tendrils opposite to the leaves; the branches climb over and grow long. The stem is 4 winged, fleshy and contracted at the nodes,

Leaf: Leaves are large, kidney shaped or lobed with an entire margin.

Flower: Flowers are borne on cymes opposite to the leaves.

Fruit: Fruits are globose berries red in colour, enclosing a single ellipsoid pale seed.

Distribution: Found in the drier regions of the Deccan Plateau and on the eastern slopes of the Western Ghats.

Uses: The juice of the stem is reported to help the healing of fractured bones. It is edible and is consumed by the local people.

Glossary

Aril: An appendage more or less enveloping the seed.

Axillary: Situated in an axil which is the angle between the leaf and its point of attachment on the main stem.

Bipinnate: Used to refer to compound leaves where the mid rib bears pinnae which in turn bear leaflets. Leaflets arranged on an axis, and many such arrangements are arranged on a common rachis like in a feather.

Blaze: The colour of the wood as seen when the tree is cut.

Bole: The main stalk or trunk of the tree.

Capsule: A dry dehiscent fruit.

Coriaceous: Leathery texture.

Drupe: A fruit with a more or less succulent flesh enclosing the stone.

Glabrous: Without any kind of hair.

Hispid: With rough or bristly hairs.

Imparipinnate: Pinnate with an odd terminal member.

Inflorescence: The flower cluster as a whole

Lenticellate: Corky spots shaped like a bi-convex lens seen on young barks.

Ligule: A narrow transverse appendage at the inner side of the base of the leaf.

Panicle: A repeatedly branched inflorescence.

Papilionaceous corolla: Five petals having one standard, two keel and two winged petals, typical of sub-family Papilionaceae in family Leguminosae.

Paripinnate: Pinnate with an equal number of members on each side of the axis and no odd terminal leaflet.

Peduncule: The common stalk of two or many flowers or of a complete inflorescence.

Pinnate: Leaflets arranged on each side of a common axis as in a feather.

Pubescent: Clothed with soft, rather short hair or down.

Pyrenes: A nut-let; often seen as one of the small stones of a drupe or similar fruit.

Retuse: A shallow notch in a rounded apex.

Salver: Shaped like a platter.

Samara: An indehiscent winged fruit or winged parts of a dehiscent fruit.

Sessile: Without a stalk.

Stone: A hard endocarp enclosing a seed.

Tomentose: Densely matted with woolly hair.

Umbel: An inflorescence in which a cluster of pedicels springs from the same point. It appears like an open umbrella.

Viscid: Sticky or clammy owing to an exudation.

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