

Floral Diversity of Nandankanan Wildlife Sanctuary



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Forest and Environment Department
Government of Odisha, Bhubaneswar

ISBN: 13-978-81-920657-0-2

First Edition: 2012

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Cover photograph:

Flower of *Ceropegia candelabrum* Linn. (*Asclepiadaceae*)

Published by:

Nandankanan Biological Park

Forest and Environment Department
Government of Odisha, Bhubaneswar

Designed and printed at

Jyoti Graphics

701, Sahidnagar, Bhubaneswar 751 007

PREFACE

The biological resources of the earth are under varying degrees of threat due to both natural and man-made factors. During last two decades, there has been a greater consciousness about the need for conservation of biological diversity and it is widely recognized that the loss of biodiversity has great environmental and economic impacts. An ecosystem rich in biological diversity offers the broadest array of options for sustainable economic activities for human welfare and for adapting to environmental and human-induced changes. Considering the pivotal importance of the great variety of plant and animal life, there is a urgent need to document and study the biological resources within an ecosystem for formulation and implementation of appropriate conservation and management strategies to ensure long-term survival of these biological entities.

The protected areas like Biosphere Reserves, National Parks, Wildlife Sanctuaries etc. play a vital role in the conservation of biodiversity and maintaining the natural ecosystems. Various programs have been launched world over for the conservation of natural resources like plants, animals, microbes and the habitats they live in. India is one of the twelve mega-biodiversity countries of the World. The strategies for *in-situ* conservation and sustainable utilization of bioresources comprise providing special status and protection to biodiversity-rich areas by declaring them as National Parks, Wildlife Sanctuaries, Biosphere Reserves, etc. As such, a network of protected areas has been created in the country through 89 National Parks, 489 Wildlife Sanctuaries and 13 Biosphere Reserves.

Nandankanan Wildlife Sanctuary, one of the 19 wildlife sanctuaries of Odisha, covers the Nandankanan Zoological Park, the State Botanical Garden and Kanjia Lake, a wetland of national importance. The Zoological Park is one of the finest large zoos of the country and it houses a number of free living animal species besides 120 species of wild animals in captivity. The zoo is visited by more than two million visitors in a year. The State Botanical Garden is located in natural surroundings on the northern side of Kanjia lake and harbours remnant natural vegetation characteristic to sandstone hills and lateritic soils besides a wide range of horticultural domesticates and introduced species. The garden is one of the important centres for plant introduction, *ex situ* conservation and nature education in the State. A complete and comprehensive account of the plant resources of Nandankanan is not available. This necessitates the urgent need for a complete inventory of plant biodiversity of this wildlife sanctuary.

The present book gives a botanical account of 704 wild and naturalised plant species belonging to 491 genera and 142 families and occurring within the geographical boundary of Nandankanan Wildlife Sanctuary. The study is based on field work undertaken by the authors. Species occurring in the wild, those naturalised in this habitat and commonly cultivated ones have been included in the enumeration. The families have been arranged according to the modified Bentham & Hooker system of classification for ease of reference by the users. For each species, correct botanical name with author citation, synonym (s) as appearing in the local floras, vernacular names, botanical description, flowering and fruiting time, ecological notes on distribution etc. have been provided with coloured photographs for each species. It is hoped that this book will not only serve as a reference tool for the visitors and the managers and policy planners responsible for conservation and management of this important sanctuary but also help the students, researchers and teachers of botany, forestry, wildlife and the common man alike for identification and nomenclature of the plants of this region in particular and of Odisha, in general. One will find this book particularly useful for identification of herbaceous species including grasses and sedges in the wild, which very often pose problems in identification. As it is not possible to include all cultivated and introduced species in the enumeration, a checklist of 352 spp. of garden ornamentals and introduced taxa has been appended in this book. Besides, a glossary to botanical terms used in the text has also been provided as a quick referral system. The authors have no hesitation in admitting the fact that, as with any floristic inventory, the present enumeration is no way complete and many more species might have escaped our attention during fieldwork and we intend to include these in subsequent editions of the book.

It is hoped that the work will contribute to the better understanding of the floristic diversity in the sanctuary and arouse interest in plant resource inventory and documentation in other protected areas in the State and elsewhere.

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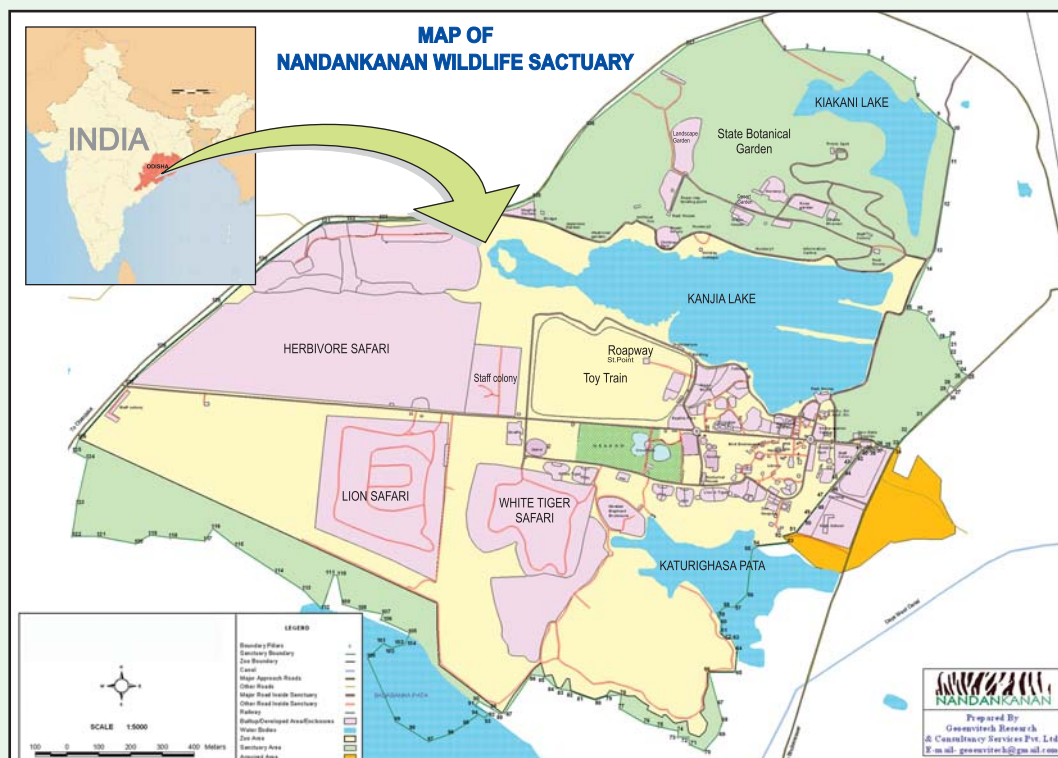
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Aquatic vegetation of Kanjia lake

INTRODUCTION

Nandankanan Wildlife Sanctuary is situated in the extreme north-east of Khurda district of Odisha close to Chandaka-Dampara wildlife sanctuary and lies between 20° 23' 08" to 20° 24' 10" North latitude and 85° 48' 09" to 85° 48' 13" East longitude. This includes the Nandankanan Zoological Park, the State Botanical Garden and Kanjia Lake, a wetland of national importance and extends over an area of 4.37 sq. km. The Government of Odisha declared it as a wildlife sanctuary vide notification No.20682/FF-AH on 3rd August, 1979. It is located at a distance of 17 km from Cuttack and 20 km. by road from Bhubaneswar, the capital city of Odisha. This site covers portions of Krishnanagar and Jujhagarh Demarcated Protected Forests (DPF) and is close to Baranga Railway station on Howrah-Chennai route. The Bhubaneswar Railway station is 18 km and Cuttack Railway station is about 15 km. from the zoo. The nearest Airport is Biju Pattnaik Airport at Bhubaneswar which is about 20 km. from the sanctuary.



Nandankanan Zoological Park is one of the finest large zoos of the country and it spreads over an area of 362 ha. It houses a number of free living animal species besides 120 species of animals in captivity. The zoo which was established on 29th December, 1960 is presently visited by more than two million visitors a year. Nandankanan enjoys a special place of *ex-situ* conservation of wildlife in India. It is also a vibrant centre for education in wildlife and environment. Nandankanan has the unique distinction of integration of wildlife conservation both in wild and in captivity. The animal enclosures have been progressively designed to create large enclosures in natural environment. A number of rescued and injured animals have been provided necessary health care and are rehabilitated. The State Botanical Garden with an area of 75 ha. adjoining to the zoological park has been handed over to Nandankanan management in August, 2006. This is one of the important plant introduction, *ex situ* conservation and nature education centres of the State. The Botanical Garden is located in a natural surroundings on the northern side of Kanjia lake and harbours remnant natural semi-evergreen and moist deciduous vegetation characteristic to sandstone hills and lateritic soils, which is akin to vegetation of Chandaka-Dampara Sanctuary and Khandagiri-Udaygiri hills in terms of species composition and diversity.

At present, the zoological park has 101 enclosures with 202 sub-enclosures. It houses 120 species of animals which include 40 species of mammals, 56 species of birds and 24 species of reptiles. There are more than 1942 animals including 776 mammals, 874 birds and 222 reptiles. Eighty eight (88) indigenous species along with 32 exotic species of animals add glory to the collection of Nandankanan Zoological Park. The animal collection includes 14 species of endangered mammals, 6 species of endangered birds and 10 species of endangered reptiles listed in Schedule I of Wildlife (Protection) Act, 1972. The Kanjia lake, more popularly known as Nandankanan lake, Kiakani lake and the adjoining wetlands attract a large variety of migratory birds during winter which adds to the celestial beauty of nature in this biological complex.

Climate, Soil and Geology:

Nandankanan Wildlife Sanctuary enjoys a moderately hot humid climate experiencing maximum and minimum temperatures of 41°C and 35°C respectively. The average annual rainfall is 1,350 mm. In general, the climatic conditions like rainfall, humidity, temperature etc. conform to those of Bhubaneswar. The altitude varies from 20 m to 45 m. above mean sea level. The soil type is lateritic and slightly acidic in nature. The rock formations belong to sandstones of Jurassic period with lateritic outcrops of varying depths.

Forest Vegetation:

The existing natural vegetation is of moist mixed deciduous type characteristic to sandstone hills and lateritic soils with scattered semi-evergreen patches. The composition of forests is very much similar to that found in the adjacent Chandaka-Dampara sanctuary. The forest trees found in abundance inside Nandankanaa are *Ehretia laevis*, *Vitex pinnata*, *Atalantia monophylla*, *Pterospenmnn xylocarpum*, *Aegle marmelos*, *Diospyros sylvatica*, *Bridelia retusa*, *Antidesma ghaesembilla*, *Ziziphus xylopyrus* and *Careya arborea*. Clumps of spiny bamboo (*Bambusa arundinacea*) are also commonly scattered through out

the area. Most part of the vegetation has been degraded due to considerable biotic interferences in the past few decades. *Catuneregam spinosa*, *Capparis brevispina*, *Streblus taxoides*, *Mimosa rubicaulis*, *Flacourtia indica*, *Carissa spinarum*, *Maytenus emarginata* and *Hugonia mystax* are the representative elements of the thorny scrub forests. Other shrubby species like *Ochna obtusata*, *Olex psittacorum*, *Allophylus serratus*, *Tarenna asiatica*, *Cipadessa baccifera* and the alien weeds *Chromolaena odorata* and *Lantana camara* var. *aculeata* occur in profusion. On rocky substratum, *Suregada multiflora*, *Gardenia latifolia*, *Memecylon umbellatum*, *Lanea coromandelica*, *Pterospermum xylocarpum* etc. form a characteristic plant community in association with herbs like *Dicliptera bupleuroides* var. *roxburghiana*, *Eranthemum capense*, *Ecbolium viride*, *Blepharis maderaspatensis* and *Aerva sanguinolenta*. Climbers /twiners are usually plenty in such type of forests and include *Combretum roxburghii*, *Calycopteris floribunda*, *Ichnocarpus frutescens*, *Abrus precatorius*, *Acacia pennata*, species of *Dioscorea*, *Passiflora foetida*, *Tinospora cordifolia*, *Canavalia virosa*, *Cocculus hirsutus*, *Smilax zeylanica*, *Tiliacora acuminata*, *Hemidesmus indicus* etc. The ground flora is composed of a large number of seasonal weeds which are found at their luxuriance during rainy season and gradually disappear with the onset of summer. Dominant species of the ground cover are *Aerva sanguinolenta*, *Pupalia lappacea*, *Andrographis paniculata*, *Rungia pectinata*, *Peristrophe paniculata*, *Sida acuta*, *Mimosa pudica*, *Cyperus rotundus*, *Alloteropsis cimicina*, *Eragrostis* spp., *Chrysopogon aciculatus*, many members of grasses, sedges, Commelinaceae and Scrophulariaceae. On completely exposed lateritic beds, *Microchloa indica*, *Oropetium thomaeum*, *Lepidagathis hamiltoniana* and *Tephrosia maxima* make a characteristic plant association during rains. The terrestrial habitats have also been adversely influenced by the rapid spread of some exotic and alien weeds like *Mikania micrantha*, *Chromolaena odorata*, *Spermacoce latifolia*, *Alternanthera* spp., *Lantana camara* etc.



Aquatic Vegetation:

The Kanjia lake, popularly known as Nandankanan lake, Kiakani lake and the adjoining perennial swamps and puddles are ideal habitat for large number of aquatic, semi-aquatic and marshland plants. The commonly observed free-floating hydrophytes of the lake water are *Pistia stratiotes*, *Azolla pinnata*, *Salvinia natans*, *Eichhornia crassipes* and *Trapa natans*. Of the submerged aquatic plants, *Ceratophyllum demersum*, *Utricularia* spp., *Hydrilla verticillata*, *Myriophyllum tetrandrum*, *Ottelia alismoides*, *Nechamandra alternifolia*, *Blyxa echinosperma*, *Vallisneria natans* etc. are found in plenty. The above list includes both suspended and anchored submerged hydrophytes. Other water plants of quantitative importance are *Nymphaea pubescens*, *Nymphaea nouchali*, *Nelumbo nucifera*, *Nymphoides hydrophylla*, *Nymphoides indica*, *Aponogeton natans*, *Sagittaria guayanensis* ssp. *lappula*, *Ipomoea aquatica*, *Ludwigia adscendens*, *Hygrorhiza aristata* and *Limnophyton obtusifolium*. *Vigna adenantha* and *Leersia hexandra* are found trailing on water surface to a great distance from the shore and *Mikania micrantha* is a gregarious weed in aquatic habitats. In the muddy swamps of Kiakani lake, *Sesbania javanica* and *Ludwigia octovalvis* are the two tall aquatic shrubs occurring in profusion. Many other emergent but anchored hydrophytes are seen along the lake margin and in the swamps and ditches of the vicinity. The species common to such habitats are *Hydrocera triflora*, *Polygonum* spp., *Pentapetes phoenicea*, *Eleocharis dulcis*, *Schoenoplectus articulatus*, *Adenostema lavenia*, *Limnophila heterophylla*, *Hygrophila schulii*, *Hymenachne acutigluma*, *Echinochloa stagnina*, *Oryza rufipogon*, *Monochoria hastata* and *Ludwigia perennis*. Spread of floating aquatic weeds like *Salvinia cucullata*, *Pistia stratiotes*, *Eichhornia crassipes*, *Azolla pinnata* and rooted hydrophytes like *Ampelopteris prolifera*, *Hymenachne acutigluma*, *Leersia hexandra*, *Ludwigia octovalvis*, *Panicum* spp. have very badly affected the aquatic ecosystem of both Kanjia and Kiakani lakes. The population of *Myriophyllum tetrandrum*, *Sagittaria guyanensis* etc. have been reduced alarmingly during the last 2 decades in the lake waters.

Introduced and Cultivated Plants:

Besides the native flora, several other useful species, exotic ornamentals and forestry species have been introduced to the zoo and the botanic garden. The common avenue plants grown in the sanctuary area are *Delonix regia*, *Peltophorum pterocarpum*, *Acacia auriculiformis*, *Gliricidia sepium*, *Spathodea carnpanulata*, *Kleinhovia hospita*, *Drypetes roxburghii*, *Polyalthia longifolia* etc. The State Botanical Garden has a rich collection of indigenous and exotic species of economic importance. The garden has an arboretum, a medicinal plant garden, an Orchidarium, cactus and other succulent house, a Hibiscus garden, rosary, a desert garden, collection of house plants, long palm avenues, a nursery, bamboo garden, parks for children, a Moghul garden and many other features

Study of flora – past and present:

Though the flora of Odisha has been studied by several workers (Haines, 1921-25; Mooney, 1950; Saxena & Brahmam, 1994-96), no systematic attempt has so far been made to make a comprehensive inventory of plant resources of Nandankanan Wildlife Sanctuary, which includes Nandankanan Zoological Park, State Botanical Garden, Kanjia & Kiakani Lakes and the adjoining swamps. Choudhury (1980), Choudhury & Pattnaik (1982, 1985); Panda (1992), Panda & Pattnaik (1994 a & b), Panda *et al.* (2004) in connection with floristic

studies of Bhubaneswar region and erstwhile Puri district have surveyed the flora and vegetation of Nandankanan Biological Park. The aquatic plants of Kanjia lake have also been partly studied by Durani & Rout (1982) and Das *et al.* (1994). Choudhury & Biswal (1994) brought out an enumeration of 323 species of angiospermic plants under 248 genera and 87 families occurring in the geographical boundary of the Nandankanan sanctuary. However, a complete and comprehensive assessment of floral diversity of this important wildlife sanctuary of Odisha was long over due. Through systematic inventory of wild flora and naturalized plant species, a total of 704 species of plants belonging to 491 genera under 142 families have been collected, identified and photographed. It includes 686 species of angiosperms belonging to 475 genera and 127 families, 12 species of pteridophytes and 6 species of gymnosperms. The angiospermic flora is comprised of 531 species of dicots under 377 genera and 103 families and 155 monocot species belonging 98 genera and 24 families. The ratio of dicot to monocot is 71:29. The composition of five dominant plant families in the flora of Nandankanan is presented below.

Composition of five dominant plant families

Sl. No.	Family	No. of genera	No. of species
1	Poaceae	44	65
2	Fabaceae	27	49
3	Cyperaceae	10	35
4	Euphorbiaceae	19	31
5	Rubiaceae	19	27
	Acanthaceae	19	27

However, garden exotics and seasonal plants which are not common and do not show natural regeneration and establishment have not been included in the enumeration. A checklist of exotics and garden ornamentals grown in the Biological Park is provided separately. Though all attempts have been made to survey the area extensively and capture all the species occurring therein, as with any floristic inventory, some species might have been left out or escaped our notice. In the enumeration, the families are arranged after modified Bentham and Hooker's system of classification and the genera under a family and species under a genus are arranged alphabetically. For each species, correct botanical name with author citation, synonym (if any) appearing in "The Botany of Bihar and Orissa" (Haines, 1921-25), vernacular name in Odia, Bengali, Hindi and English (wherever available) have been provided. Colour photograph taken in the field by the authors has been given for each plant species to aid the process of correct identification, even by a common man. The dominant families according to their species content are Poaceae (65 species), Fabaceae (49 species), Cyperaceae (35 species) and Euphorbiaceae (31 species). Though the dicots on the whole are predominant (531 species) over monocots (155 species), it is interesting to note that the two dominant families (Poaceae and Cyperaceae) are represented by monocot members because of the available congenial wetland habitat. The pteridophytes and gymnosperms are represented by 12 and 6 species respectively.



*Botanical Description
of
Species*

ANGIOSPERMS (Dicotyledons)

DILLENiaceae

Dillenia indica Linn.

Vernacular name: Oao, Oau (O); Chalta (Beng. & H).

Moderate sized evergreen tree with a dense crown; trunk rather crooked and irregular. Leaves deep green, oblong to lanceolate, margin dentate. Flowers white, solitary. Sepals 5, elliptic, thick. Stamens in 2 distinct groups. Fruit indehiscent, yellowish-green, including the enclosing sepals. Seeds in colourless glutinous pulp, reniform.

Frequently planted in gardens and homesteads. Fruits used for pickles, chutneys and in curry.

Flowering : May - June

Fruiting : September - February



MAGNOLIACEAE

Michelia champaca Linn.

Vernacular name: Champa, Champaka (O, Beng., H).

Evergreen trees, 20-40 m tall; Leaves ovate-lanceolate or oblong-lanceolate, coriaceous, glabrous above, more or less pubescent beneath, with strong secondary nerves and reticulations. Flowers axillary, regular, yellow; perianth 9-15, free, deciduous, segments oblong, fleshy, curved. Receptacle elongate, columnar, bearing stamens at base and pistils above. Fruit an aggregate of follicles; follicles warty, dehiscing by 2 valves; seeds scarlet.

Very commonly planted in temple premises, roadsides, gardens and parks; wild in semi-evergreen forests.

Flowering : March - April

Fruiting : June - July



ANNONACEAE

Alphonsea madraspatana Bedd.

Vernacular name: Ghanti (O).

Medium-sized, evergreen tree; young branches rusty-tomentose. Leaves elliptic-ovate or oblong, shining. Flowers fascicled, 1-6 on leaf-opposed or supra-axillary peduncles. Sepals small, ovate, rusty-tomentose. Petals yellow, puberulous outside. Stamens 12, 2-seriate. Fruit ovoid, smooth, yellow-tomentose.

Occasional in shady places on sand stone hills.

Flowering : March

Fruiting : June - August



Annona reticulata Linn.

Vernacular name: Ramaphal, Barhial, Ata (O); Nona (Beng.); Ramphal (H); Bullock's Heart (E).

Tree. Leaves oblong-lanceolate. Flowers 2-4, on lateral pedicels. Petals pale-green, outer tomentose, the inner minute, shorter than the sepals. Syncarp orange, subglobose, rough outside, with lightly marked pentagonal areoles. Seeds smooth, blackish.

Cultivated for its edible fruits; naturalised in many parts of the country as an escape.

Flowering : June

Fruiting : December - January



Annona squamosa Linn.

Vernacular name: Neua, Sitaphal (O);
Ata, Sitaphal (Beng.); Saripha (H);
Custard Apple (E).

Small tree. Leaves elliptic or oblong-lanceolate, glabrous, glaucous beneath, pellucid-punctate. Flowers drooping, solitary or 2-4 in a cluster. Sepals 3, triangular. Petals greenish-yellow, outer ones thick, inner ones minute or 0. Syncarp globose, glaucous, yellowish-green when ripe, with well marked, tuberculate areoles. Seeds smooth, blackish.

Cultivated and naturalized, often found self-sown in hedges, waste places.

Flowering : March - May

Fruiting : July - September



Artabotrys hexapetalus (Linn.)
Bhandari [Syn. *Artabotrys*
odoratissimus (Roxb.) R. Br.]

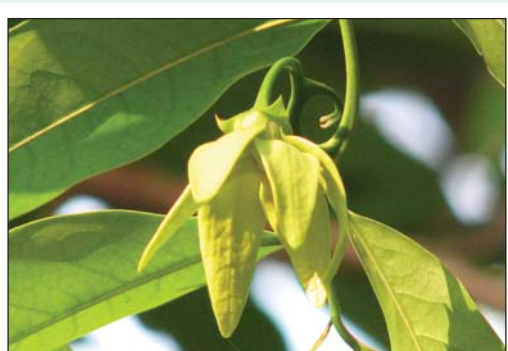
Vernacular name: Chini champa (O);
Katali champa (Beng.).

Stragglng shrub. Leaves oblong or oblong-lanceolate, glabrous, glossy above. Flowers solitary or paired, sweet-scented, yellow, peduncle terminal or leaf-opposed, curved and hooked. Sepals ovate, tips recurved, pubescent. Petals lanceolate, saccate or concave. Ripe carpels 14-20 in a cluster, green or ultimately yellow, sessile, obovoid. Seed solitary, oblong.

Often cultivated in gardens, parks and temple premises.

Flowering : March - July

Fruiting : August - December



Polyalthia cerasoides (Roxb.) Bedd.

Vernacular name: Potamossu, Champati (O); Kudumi (H).

Small tree with spreading branches; branchlets tomentose when young. Leaves lanceolate or oblong-lanceolate, lower surface pubescent. Flowers green, axillary or from old leaf-scars. Outer petals oblong or ovate, inner ones linear or lanceolate, carpels stalked. Ripe carpels in umbel, bright red, globose. Seed brown, ovoid.

Very common in hill forests.

Flowering : April - May

Fruiting : June - August



Polyalthia longifolia (Sonn.) Thw.

Vernacular name: Debadaru (O); Ashok (H).

Tall evergreen tree. Leaves narrowly lanceolate, shining, margin undulate, apex long-acuminate. Flowers yellowish-green, fascicled or in shortly peduncled umbels; sepals triangular, acuminate, spreading, subequal. Ripe carpels ovoid, stalked. Seeds smooth, oblong-ovate, shining.

Commonly planted in gardens and as an avenue plant; self-sown and naturalized in suitable locations.

Flowering : March - April

Fruiting : July - August



Polyalthia suberosa (Roxb.) Thw.

Vernacular name: Guakoli (O); Barachali (Beng.); Cham-khinni (H).

Small tree or shrub; bark brown, corky; young twigs rusty-tomentose. Leaves oblong, elliptic or obovate, glabrous above. Flowers yellowish-green, solitary or 2-3 on a short extra-axillary branch. Sepals ovate. Petals oblong or lanceolate, inner ones slightly larger. Ripe carpels 20-25 in a cluster, red, globose or broadly ellipsoid. Seed solitary.

Fairly common in shady moist localities in forests.

Flowering : April - May

Fruiting : August - November



MENISPERMACEAE

Cissampelos pareira Linn. var. *hirsuta* (Buch.-Ham. ex DC.) Forman (Syn: *Cissampelos hirsuta* Buch.-Ham. ex DC.)

Vernacular name: Musakani, Akanabindi (O); Akanadi (H,Beng.).

Slender climber with perennial root-stock. Leaves ovate or orbicular, palmately 5-7-nerved, glaucous beneath. Male inflorescence pubescent; flowers green to yellow. Female inflorescence upto 18cm, bracteate, puberulous. Ovary pilose; style thick, glabrous; stigma divaricately 3-lobed. Drupe orange or red, pubescent.

Quite abundant in hedges, thickets and scrub jungles.

Flowering : June - November

Fruiting : November - January



Cocculus hirsutus (Linn.) Diels

Vernacular name: Dahdahiya, Dadaya (O); Huyer (Beng.); Jantikibel (H).

Straggling climber, densely villous. Leaves triangular to ovate; base rounded. truncate or cordate. Undersurface densely villous, pubescent to glabrescent above. Male flowers in axillary, short-peduced small capitate cymes. Female flowers 1-3 from short axillary peduncles. Drupe purple, compressed, tomentose.

Common in bushes, hedges and climbing on small trees.

Flowering : November - April
Fruiting : March - May



Tiliacora acuminata (Lam.) Miers

Vernacular name: Kalajati Nai (O); Tiliakoru (Beng.).

Large woody climber. Leaves ovate to oblong-lanceolate, glabrous, with 3-5 sub-palmate basal nerves. Inflorescence tomentose or pubescent, male inflorescence 6-7 cm long, female inflorescence 3-5 cm long. Male flowers: petals 6, bright yellow, free. Female flowers: carpels 6. Drupes red.

Occasional, in bushes, thickets and climbing on trees.

Flowering : April - June
Fruiting : June - December



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

Vernacular name: Guluchi, Guluchilata (O); Jwantika (H); Giloe (Beng.).

Woody climber; often sending down slender, pendulous, fleshy roots. Leaves cordate, glabrous, 5-7(-9)-nerved. Pseudoracemes axillary or on leafless branchlets. Male flowers: clustered in the axils of minute bracts; petals 6, green, free; stamens enclosed by petals. Female flowers: solitary in the racemes. Drupes red, globose, radiating from a 2-3-branched carpophore.

Abundant on forest trees and hedges.

Flowering : August - December

Fruiting : March - May



NELUMBONACEAE

Nelumbo nucifera Gaertn.

Vernacular name: Padma (O); Rakta Padma (Beng.); Kanwal, Kamal (H); Lotus (E).

Submerged-rooted aquatic plant. Leaves round 20-30 cm across, waxy, glaucous beneath; petiole to 2 m. Flowers pinkish-white, about 20 cm across. Sepals greenish white, ovate. Petals elliptic, apex obtuse. Receptacle 5-8 cm. Ripe carpels nut-like.

Locally abundant in Kanjia lake and adjoining swamps in small patches.

Flowering : April - July

Fruiting : December - January



NYMPHAEACEAE

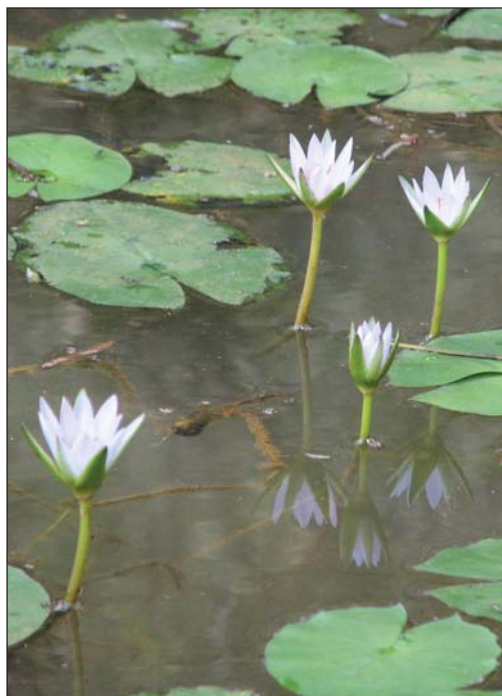
Nymphaea nouchali Burm. f. (*Nymphaea stellata* Willd.)

Vernacular name: Nilakain, Dhalakain (O); Nilshapla, Sundi (Beng.); Nil Kamal (H); Blue Water lily (E).

Submerged-rooted aquatic plant. Leaves sinuate or dentate on margins, greenish above, purple beneath. Flowers blue, white or rose. Sepals oblong, ovate-oblong, obscurely nerved. Petals oblong or oblanceolate. Receptacle to 1.5 cm. Stamens slightly connate to petals; filaments yellow. Cells of the ovary separated by a double wall; stigmatic rays 10-30, unappendaged.

Very common in lakes, ponds and ditches.

Flowering : Throughout the year



Nymphaea pubescens Willd.

Vernacular name: Nalikain (O); Nal Saluka (Beng.); Indian Water Lily (E).

Submerged-rooted aquatic plant. Leaves 15-30 cm dia, green above, purple and pubescent beneath, margins sharply dentate. Flowers pink or red. Sepals ovate-oblong, prominently nerved. Receptacle to 1cm. Filaments of stamens yellow, unappendaged. Cells of ovary separated by single wall. Stigmatic rays about 15-20, incurved, appendaged.

Common in lakes, ponds, swamps and ditches.

Flowering : Throughout the year.



PAPAVERACEAE

Argemone mexicana Linn.

Vernacular name: Agara, Kanta Agara, Nippania (O); Siyal-kanta (Beng.); Prickly poppy, Mexican poppy (E).

Glabrous herb, up to 1 m tall. Leaves oblong, sinuate-pinnatifid, glaucous, margin spinulose-dentate, lower leaves in a rosette. Flowers yellow, sessile or on short pedicel; petals 6, in two series. Fruit softly prickly; seeds black-brown.

Fairly common weed throughout the area.

Flowering : December - February
Fruiting : February - April; but more or less throughout the year in suitable locations.



CAPPARACEAE

Capparis brevispina DC.

Vernacular name: Niphura, Nepheda (O).

Erect or straggling shrub. Leaves elliptic, oblong or oblanceolate, with nerve reticulations on both sides. Flowers axillary, solitary; sepals ovate-lanceolate to orbicular-lanceolate; petals cream or white, oblanceolate, sometimes with maroon blotches. Fruit ellipsoid, beaked.

Frequent in scrub jungles and rocky habitats.

Flowering : January - March
Fruiting : April - June



Capparis zeylanica Linn. (Syn: *Capparis horrida* Linn.)

Vernacular name: Asadhua (O); Kalokara, Bagnai (Beng.); Ardanda (H).

Climbing shrub, stellate-tomentose; thorns recurved. Leaves ovate-elliptic or rarely obovate, base rounded. Flowers white or pink, 1-few in supra-axillary rows; sepals more or less densely tomentose outside; petals very thin, oblong with rounded top; stamens many, white or purple; gynophore slightly exceeding the stamens; ovary ellipsoid. Fruit globose, woody-coriaceous, reddish or purple.

Common in scrub forests, thickets and hedges.

Flowering : February - April

Fruiting : September - October

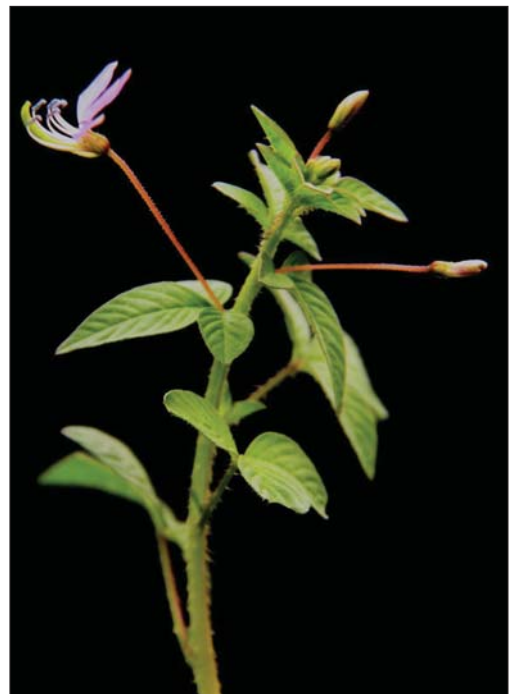


Cleome rutidosperma DC.

Erect or procumbent, profusely branched annual herb; stem ribbed, with sparse soft, pickle like appendages. Leaves 3-foliolate; leaflets subsessile or short-petioled, elliptic-rhomboid or elliptic-lanceolate-oblong. Flowers solitary, in highest leaf-axils; sepals lanceolate; petals violet-blue, obovate-elliptic; ovary on long gynophore. Capsule slightly compressed, attenuate at both ends; seeds dark-brown, suborbicular-reniform.

Frequent weed in moist places, walls and waste lands.

Flowering : August - November,
& Fruiting : sometimes throughout
the year.



Cleome viscosa Linn.

Vernacular name: Banasorisa, Anasorisa (O); Hurhur (H); Hurhuria (Beng.).

Erect, annual, glandular-pubescent herb. Leaves 3-5-foliolate; leaflets sessile or shortly petiolulate, obovate or elliptic, the middle one larger than the lateral ones. Racemes corymbose. Flowers yellow, long-pedicelled, in the axils of reduced leaves; stamens 10-many; ovary glandular-hairy. Capsule terete, beaked, glandular hairy; seeds many with strong transverse ridges.

Fairly common weed in grassy lands, waste places and cultivated fields.

Flowering : June - October
& Fruiting



Crateva magna (Lour.) DC. (Syn: *Crateva religiosa* auct. non Forst.)

Vernacular name: Varuna, Baruna (H, Beng.,O).

Small trees; branchlets lenticulate. Leaves trifoliolate; leaflets lanceolate to ovate lanceolate, base acute, apex gradually acuminate, thin-coriaceous. Inflorescence racemose, terminal, corymbiform; flowers subtended by bracts; sepals petaloid; petals yellowish. Berry yellowish-grey, ovoid or ellipsoid, rugose; gynophores to 5 cm.

Occasional in rocky places and scrub forests.

Flowering : March - April, mostly with the leaves but sometimes before the new leaves.

Fruiting : May - June. Deciduous in January - March.



VIOLACEAE

Hybanthus enneaspermus (Linn) F. V. Muell. (Syn: *Ionidium suffruticosum* (Linn) Ging. ex DC.)

Vernacular name: Madan mastak, Madan mast (O); Ratanpuras(H); Nunbora (Beng.).

Erect or suberect, more or less pubescent herb. Leaves sub-sessile, linear-lanceolate, elliptic or linear, margin entire to shallowly serrate. Sepals subequal, triangular membranous. Petals 5, pink, unequal, upper ones oblong, laterals falcate, lower one larger, orbicular, clawed, saccate at base; stamens 5. Capsule subglobose; seeds ellipsoid.

Common in lawns, grassy lands and cultivated fields.

Flowering : Throughout the year.
& Fruiting



BIXACEAE

Bixa orellana Linn.

Vernacular name: Sundri, Sindura, Gulbas, (O); Latkan (H, Beng.); Annatto (E).

Shrub or small tree. Leaves ovate, base subcordate or truncate, densely red-dotted, 5-nerved at base. Flowers 10-50 in corymbose panicles; sepals purplish-red, broadly ovate to orbicular, petals purplish-pink to nearly white, narrowly obovate, with a few scales on abaxial side and with elongated red spots. Fruits prickly, dehiscing by apical valves.

Cultivated and naturalized in many areas.

Flowering : July - October
Fruiting : October - May



FLACOURTIACEAE

Flacourtia indica (Burm.f.) Merr.

Vernacular name: Baincha, Bali bhaincha (O); Benchi (Beng.); Katahi, Kanjubench (H).

Deciduous or evergreen shrub or small tree with straight sharp thorns. Leaves obovate or ovate to elliptic, coarsely crenate. Flowers yellowish, solitary or in few-flowered racemes, axillary or terminal. Disc of male flowers: lobulate or crenate and disc of female flowers entire or nearly so. Ovary globular with free styles; stigmas slightly bilobed. Fruit globose to ellipsoid, blackish red when ripe; seeds 5-8.

Fairly abundant in thorny scrub jungles and low hills.

Flowering : December - March

Fruiting : March - May



Casearia elliptica Willd.

Vernacular name: Khakada, Khakara (O); Maun (Beng.).

Shrub or small tree; twigs pubescent. Leaves oblong, coarsely crenate-serrate, serrulate or sometimes entire, pubescent or tomentose, especially on the nerves beneath. Flowers greenish or greenish-white; staminodes fleshy, pubescent. Capsule yellow when ripe, broadly ellipsoid to oblong, 6-angular. Seeds with scarlet aril.

Common throughout the area in scrub forests.

Flowering : February - May

Fruiting : April - May



POLYGALACEAE

Polygala arvensis Willd. (Syn: *Polygala chinensis* auct. non Linn.)

Vernacular name: Meradu (Beng.,H);
Miragu (H).

Erect or procumbent herb. Leaves orbicular, obovate or elliptic-oblong, emarginate or mucronate. Flowers yellow or pink, in solitary or lateral racemes; outer sepals subequal, ovate-lanceolate to ovate, pubescent without; wing sepals obliquely ovate. Lateral petals suborbicular or broadly obovate. Staminal sheath free; filaments united at a level about half their length. Capsule ovate-oblong, ciliate on the margins. Seeds black, elliptic-obovate, pilose.

Common in grasslands, wastelands, fields and waysides through out the region.

Flowering : June - December
& Fruiting



CARYOPHYLLACEAE

Polycarpha corymbosa (Linn.) Lam.

Vernacular name: Sana Jat-jatia (O).

Erect, branched herb, stem tomentose or scattered hairy. Leaves subsessile, linear to subulate, often mucronate, chartaceous; stipules scarious, fimbriate. Cymes contracted. Flowers silvery white or tinged with pink; sepals lanceolate, petals reddish white, oblong-oval. Capsule oblong to oblong-ovoid.

Quite common on lateritic soils, rock crevices and on sand stone hills with thin soil layers.

Flowering : October - February
& Fruiting



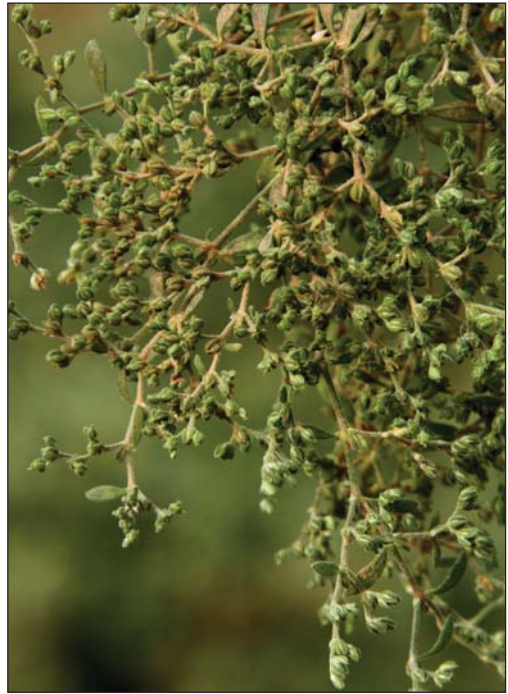
Polycarpon prostratum (Forssk.)
Asch. & Schweinf. [Syn: *Polycarpon*
loeflingiae (Wight & Arn.) Benth. &
Hook. f.]

Vernacular name: Ghima (Beng.); Sureta
(H).

Prostrate or diffuse herb; puberulous to
pubescent. Leaves subsessile,
oblanceolate or spatulate, chartaceous,
puberulous. Bracts scarious and sessile.
Flowers white, sessile or very shortly
pedicelled; sepals ovate-oblong or
oblong; petals hyaline, broadly oblong,
shorter than the sepals; stamens about 3;
ovary globose. Capsule ovoid or globose.

Common in damp places near ponds, rice
fields and water courses:

Flowering : November - May
& Fruiting



PORTULACACEAE

Portulaca oleracea Linn.

Vernacular name: Badabalbalua (O);
Baraloniya(Beng.); Khursa, Badalaniya (H).

Prostrate herb, branchlets glabrous,
green or purplish. Leaves alternate or
subopposite, obovate-spathulate, apex
obtuse or truncate, fleshy. Flowers
yellow, sessile, solitary or 2-3 in a
capitulum; foliar involucre 2-6. Sepals
lanceolate, subequal, carinate; petals
obovate; stamens 8-12. Fruit ovoid,
glabrous. Seeds brown, minutely
tubercled.

Very common weed of wastelands and
road sides close to water source.

Flowering : Throughout the year.
& Fruiting



Portulaca quadrifida Linn.

Vernacular name: Balbalua, Balbaluka (O); Luniya, Chota lunia (H, Beng.).

Creeping herb, rooting at the nodes; nodes with a whorl of intra- and interpetiolar hairs. Leaves opposite, elliptic-oblong, succulent. Flowers yellow, terminal solitary, flowers surrounded by profuse hairs; sepals oblong, petals 4, obovate, obtuse; stamens 8-12; ovary ellipsoid, half embedded in receptacle; style 3-4-cleft. Capsule ovoid, with an operculum. Seeds black, minutely tubercled.

Common in open, moist places near water courses, often in sandy localities.

Flowering : Most parts of the year.
& Fruiting



ELATINACEAE

Bergia ammannioides Roxb.

Diffuse or erect herb; branches glandular-pubescent. Leaves oblong to oblanceolate, margin minutely serrate, glandular-ciliate. Flowers reddish, in few to many-flowered fascicles; shortly pedicelled; sepals 3-5, lanceolate; petals same in number as the sepals, ovate-oblong, thinly membranous; stamens as many as the sepals. Capsule minute, seeds faintly reticulate.

Locally abundant in moist places, banks of water bodies and field bunds.

Flowering : October - January
& Fruiting



Bergia capensis Linn. (Syn: *Bergia verticillata* Willd.)

Glabrous herb with a creeping stem and ascending branches; stems succulent. Leaves elliptic-lanceolate, shallowly serrate. Flowers very small, crowded in the axils of the leaves, sessile, white; sepals and petals 5; stamens 10. Capsule globose.

Occasional, in muddy localities, banks of ponds and in shallow water.

Flowering : September - November
& Fruiting



CLUSIACEAE

Calophyllum inophyllum Linn.

Vernacular name: Poonang, Polang (O); Sultana champa (Beng., H); Alexandrian laurel (E).

Medium-sized tree; branches glabrous, young ones tetragonous. Leaves broadly elliptic-oblong or obovate, apex obtuse, rounded or emarginate, coriaceous, shining on both sides, midrib prominent below. Racemes axillary, few-flowered. Flowers white, fragrant, polygamous; sepals and petals 4 each. Ovary depressed-globose. Drupe yellow when ripe, globose, pericarp pulpy.

Frequently planted in gardens and road sides.

Flowering : March - June &
October - November

Fruiting : October - November &
April - May



Mammea suriga (Buch.-Ham. ex Roxb.) Kosterm. (Syn: *Ochrocarpus longifolius* (Wt.) Benth ex T. Anders)

Vernacular name: Churiana (O).

Small or moderate-sized tree. Leaves oblong to oblong-lanceolate, acute, thickly coriaceous, nervation of very numerous fine parallel secondary nerves copiously reticulated in between and with distinct pellucid dots in the areoles. Flowers white or rose, fragrant, 2 cm across. Fruit obovate, beaked.

Occasionally grain in temple premises, parks and Garden.

Flowering : May - June

Fruiting : November - January



Mesua ferrea Linn.

Vernacular name: Nagesar, Nageswar (O, Beng.)

Small or moderate-sized tree. Leaves oblong-lanceolate or linear-lanceolate, acuminate, glabrous, shining above, glaucous beneath. Flowers white, from the uppermost leaf-axils, very variable in size, fragrant; sepals orbicular, thick.; petals cuneate-obovate; stamens bright yellow. Fruit ovoid, with a conical beak and persistent calyx.

Planted in gardens and parks; wild in Orissa forests.

Flowering : March - July

Fruiting : Octobe - November



BOMBACACEAE

Bombax ceiba Linn. [Syn: *Bombax malabarica* DC.); *Salmalia malalorice* (DC.) Schott. & Endl.]

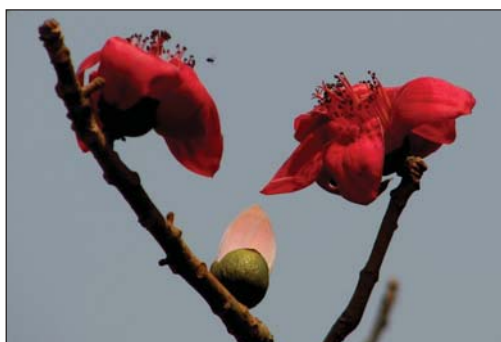
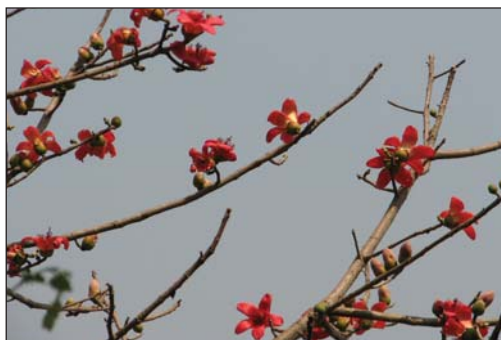
Vernacular name: Simili (O); Semal (H); Simul, Pagun (Beng.).

Deciduous tree with prickly trunk and branches. Leaves 5-7-foliolate; leaflets elliptic, entire, acuminate. Flowers bright red, on leafless branchlets; pedicel stout; calyx thick, cupuliform, 4-5 lobed, densely sericeous within; petals oblong or obovate, rotund-obtuse. Receptacle glandular. Capsule oblong; seeds pyriform.

Fairly common in drier habitats throughout the area.

Flowering : January - March

Fruiting : March - May



Ceiba pentandra (Linn.) Gaertn.

Vernacular name: Kapa (O); White Cotton Tree, Kapok tree (E).

Trees, trunk green when young. Leaves 5-9-foliolate; leaflets mostly oblanceolate or oblong. Flowers white; calyx green, campanulate, petals obovate. Capsule ellipsoid to fusiform, narrowed at both ends, valves with silky fibres. Seeds brown to black.

Occasionally planted for fibres, also in gardens.

Flowering : January - June
& Fruiting



MALVACEAE

Abelmoschus manihot (Linn.) Medic.
ssp. *tetraphyllus* (Roxb. ex Hornem.)
Borssum (Syn: *Hibiscus tetraphyllus*
Roxb. ex Hornem.)

Vernacular name: Bana Bhendi.

Undershrub, branched from the base; stem fistular, densely covered with prickly hairs. Leaves orbicular to ovate, 3-7-lobed or parted; lobes coarsely dentate or serrate, stellately hairy on both sides. Flowers solitary, axillary; epicalyx segments 4-6, ovate-lanceolate, persistent; calyx velutinous; corolla yellow with small purple centre. Capsule oblong or oblong-ovoid, 5-angled, densely hispid; seeds dark brown to black, reniform.

Occasional in scrub jungles and waste places.

Flowering : October - Novembr

Fruiting : December - January

Abutilon indicum (Linn.) Sweet

Vernacular name: Pedi-pedika (O); Potari (Beng.); Jhamp, Kanghani (H).

Undershrub, 1-2 m high; stem, petioles and pedicels densely velutinous with minute hairs. Leaves ovate to suborbicular, sometimes lobed-cordate, dentate. Flowers solitary, axillary; calyx widely campanulate, 5-partite; corolla yellow to pale orange, without purple centre. Schizocarp glabose, apex truncate or slightly indented; mericarps 15-22, flattened, reniform, much longer than the calyx. Seeds 2-3 per mericarp, reniform.

Common in waste places, along roadsides, as a weed in gardens and in forests.

Flowering : July - December
& Fruiting



Hibiscus tiliaceus Linn.

Vernacular name: Bani, Baniya (O); Bola, Chelwa (Beng.)

Small tree. Leaves ovate or orbicular, cordate at base, crenate, apex mostly cuspidate, 5-7-nerved, hoary beneath.; stipules foliaceous. Flowers solitary, axillary; epicalyx cupular; calyx campanulate; corolla yellow with crimson centre, turning red later in the day, campanulate. Capsule globose to ovoid, beaked, 5-valved. Seeds 5-8 per cell, reniform.

Planted in gardens parks and on waysides.

Flowering : March - April
& Fruiting



Sida acuta Burm. f.

Vernacular name : Bajarmuli, Sunakhadika (O); Bonmethi, Pila barela (Beng.).

Erect undershrub; stem rigid, sparsely covered with hairs. Leaves lanceolate, obovate-lanceolate, ovate-oblong, margin serrate or coarsely serrate, both the surfaces sparsely hairy. Flowers solitary, axillary or in clusters of 2-3; calyx campanulate, 5-lobed; corolla pale yellow; ovary ovoid. Mericarps 6-10, with 2 awns. Seeds triangularly ovoid, dark brown.

Gregarious weed of waste places, often occurring in pure formations.

Flowering : September - January
& Fruiting



Sida cordata (Burm. f.) Borssum

Vernacular name: Bisiripi (O); Junka (Beng.); Bonaniyar (H).

Procumbent herb, hairy through out. Leaves ovate to suborbicular, cordate, crenate-dentate or serrate. Flowers axillary, solitary, pedicel as long as or longer than the petioles; calyx campanulate; corolla yellow, petals obovate, ciliate at base. Schizocarp globose, enclosed within the persistent calyx; mericarps 5, tetrahedral; seeds ovoid.

Common weed in waste places, bushes and hedges.

Flowering : August - January
& Fruiting



Sida cordifolia Linn.

Vernacular name: Biswakopari, Bisiripi (O); Swet berela (Beng.); Bariyara, Khareti (H).

Erect herb; petioles and pedicels densely tomentose. Leaves ovate to ovate-oblong, crenate, tomentose. Flowers axillary, solitary or in clusters of 2-5, towards the top of the stem; calyx campanulate, accrescent, densely tomentose; corolla whitish or yellow. Mericarps 8-10, flattened-trigonous, with 2 hairy awns. Seeds flattened-reniform.

Fairly common in waste grounds throughout in rainy seasons and post-monsoon period.

Flowering : August - December
Fruiting : October - January



Sida rhombifolia Linn.

Vernacular name: Bajramuli, Dhala Badiaonla (O); Lal berela (Beng. & H).

Rigid herb or undershrub; stems often tinged red, with minute stellate hairs. Leaves ovate to oblong, often rhomboid, serrate to crenate in the upper part, entire towards the base. Flowers axillary, solitary or in clusters of 2-5; calyx campanulate, accrescent; corolla yellow, petals oblique. Mericarps 6-12, muticous; seeds flattened, reniform.

Quite a common weed of road sides and open fields.

Flowering : August - February
& Fruiting



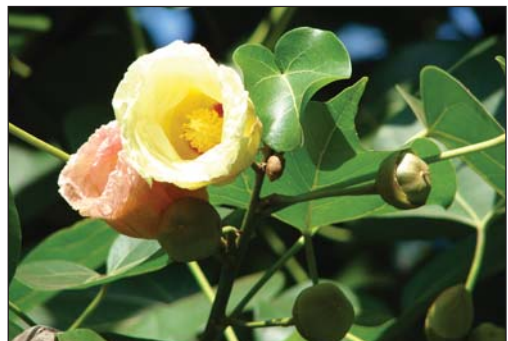
Thespesia populnea (Linn.) Sol. ex Corr.

Vernacular name: Habeli (O); Palaopipal, Gajashuni (Beng.); Paras pipal, Gajadanda (H); Portia tree (E).

Small tree; twigs densely covered with minute scales. Leaves ovate to orbicular-ovate, cordate. Flowers solitary, axillary; epicalyx segments oblong to lanceolate, densely scaly, caducous; calyx campanulate, accrescent; corolla yellow with dark purple centre, fading to pink or purplish, broadly campanulate. Capsule globose, crumpled at maturity, indehiscent; seeds obovoid, densely hairy.

Quite often planted along roads and in gardens.

Flowering : August - January
& Fruiting



Urena lobata Linn.

Vernacular name: Rakta pheni, Bilakapasia (O); Ban Okhra (Beng.).

Annual erect undershrub. Leaves ovate to orbicular, angular or shallowly or deeply palmilobed or fid; serrate to crenate, 3-9-nerved at base. Epicalyx cupular in fruit. Flowers axillary; calyx 5-parted, corolla pink with purple centre, rotate. Schizocarp globose, glochidiate; seeds reniform.

Common weed in bushes and thickets during rains.

Flowering : August - December
& Fruiting



STERCULIACEAE

Guazuma ulmifolia Lam.

Vernacular name: Debodaru (O); Nipaltunth (Beng.); Bastard cedar (E).

Moderate-sized tree; bark grey or grey brown. Leaves ovate-oblong to oblong-lanceolate, obliquely cordate at base, serrulate, scabrous above, stellate-tomentose beneath. Flowers yellow, in axillary or terminal cymes; sepals 3-5, elliptic, tomentose without; petals obvate, concave with a long and forked appendage. Capsule subglobose, woody, tubercled, indehiscent; seeds black.

Occasionally planted in gardens and parks.

Flowering : April - July
Fruiting : October - February



Helicteres isora Linn.

Vernacular name: Modimodika (O); Morphali (H); Atmora (Beng.); East Indian screw tree (E).

Shrub, stellate-hairy branches. Leaves orbicular, obovate or broadly ovate, broadly rounded or shallowly cordate at base, irregularly serrate, stellate-pubescent beneath, 5-7-palminerved. Flowers brick-red, irregular; calyx orange, curved, 5-toothed; petals 5, reflexed unequal, lower pair shortly clawed and with larger limb. Folicles linear, spirally twisted; seeds wrinkled, angular.

Fairly common in open forests and scrub jungles.

Flowering : April - December
Fruiting : October - January



Kleinhovia hospita Linn.

Vernacular name: Bola (Beng.)

Moderate-sized tree. Leaves broadly ovate to suborbicular, cordate at base, entire or shallowly dentate-serrate, palmately 3-7-nerved, pubescent to glabrous beneath. Flowers in 20-40 cm long panicles; pink; sepals 5, nearly free; gynandrophore pubescent; ovary densely pilose. Seeds globose, 1-2 per cell.

Planted in gardens.

Flowering : September - October
Fruiting : December



Melochia corchorifolia Linn.

Telpuri (O); Tikiokra (Beng.); Bilpat (H).

Branched herb. Leaves ovate-oblong or ovate-lanceolate, sometimes lobed, subcordate or truncate at base, serrate, pubescent on the nerves. Cymes terminal, capitate, subsessile, with bracts and bracteoles. Flowers pink or white, bisexual; calyx-tube cupular; petals obovate. Capsule depressed globose, pubescent; seeds black, ovoid, angular.

Abundant in open moist places, field bunds and shallow water bodies.

Flowering : July - December
& Fruiting



Pentapetes phoenicea Linn.

Vernacular name: Katlata, Bandhuli (Beng.).

Branched, stellate-pubescent herb. Leaves simple, linear lanceolate, crenate-serrate or serrate, apex gradually tapering, thinly pubescent on the nerves; lower leaves ovate oblong, 3-lobed. Flowers red, bisexual, axillary, solitary or paired on short peduncles; petals 5, obovate, adnate to the staminal tube; staminodes petaloid. Capsule subglobose or ellipsoid, bristly, loculicidally 5-valved; seeds black, suglobose, warty.

Occasional, in wet places, rice fields and shallow lake banks.

Flowering : August - October
Fruiting : November - December



***Pterospermum acerifolium* (Linn.) Willd.**

Vernacular name: Muchukund (O, H); Kanaka champa (Beng.).

Large evergreen tree, branchlets rusty-tomentose. Leaves broadly ovate-oblong to oblong-obovate, deeply toothed, coriaceous, white-tomentose beneath. Flowers white, fragrant; sepals 4-5, linear-oblong, thick, brown or yellow-tomentose without; petals linear-oblong, glabrous; staminodes white. Capsule oblong, woody, acutely 5-angled, brown tomentose, trough.

Planted in gardens, road sides and in temple premises.

Flowering : March - July

Fruiting : August - December



***Pterospermum xylocarpum* (Gaertn.) Sant & Wagh (Syn: *Pterospermum heyneanum* Wall. ex Wt. & Arn.)**

Vernacular name: Giringa (O).

Medium-sized evergreen tree; young parts rusty stellate-tomentose. Leaves oblong, oblong-ovate, sub-cordate, margin distantly dentate or lobed, rarely entire, thick, coriaceous, white tomentose beneath with raised brown nervation. Flowers white, fragrant; sepals oblong, rusty tomentose without, white villous within; petals oblanceolate, with white stellate pubescence. Capsule pyriform, woody, obtusely 5-angled, rusty stellate-tomentose, apiculate; seeds orbicular, compressed with broad wings.

Very common in mixed forests, characteristic of sandstone hills.

Flowering : October - December

Fruiting : April - May



Sterculia urens Roxb.

Vernacular name: Genduli, Kodala (O); Gulu, Gula(H).

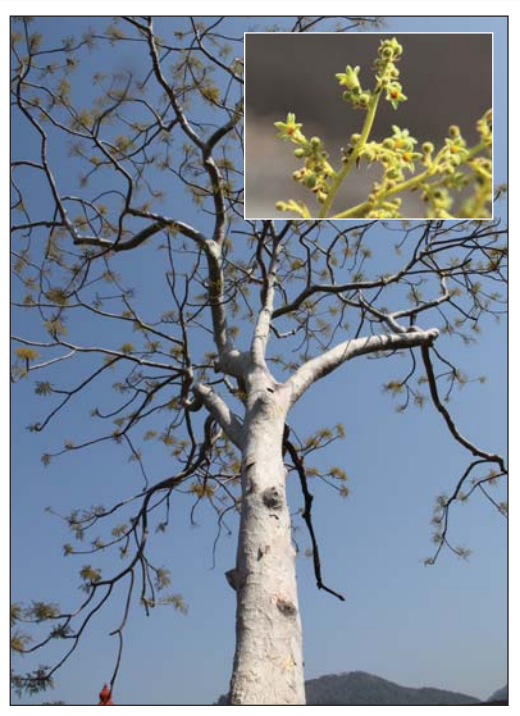
Moderate-sized tree; bark papery. Leaves large, orbicular-cordate, palmately 5-lobed, tomentose beneath; lobes entire, caudate; petiole 15-30 cm long. Flowers in axillary and terminal panicles, densely viscid- pubescent, reddish-brown. Male flowers: calyx 5-lobed, tomentose outside, greenish inside; gynandrophore included within the calyx. Stamens 10. Female flowers: ovary globose. Follicles 4-5, ovoid-oblong, densely hairy.

Frequent in deciduous forests, especially on hill slopes.

Flowering : December - March

Fruiting : April - August

Leafless : November, December - May



Waltheria indica Linn.

Vernacular name: Telpuri, Bila Nalita (O); Tikiokra (Beng); Bilpat (H).

Erect, hoary stellate-tomentose herb or undershrub. Leaves simple, ovate-oblong, elliptic or ovate, toothed, white or greyish, stellate-tomentose beneath. Flowers yellow, bisexual, in dense axillary clusters; bracts and bracteoles lanceolate; calyx strigose; petals clawed; staminal tube with 5 oblong anthers; staminodes absent. Capsule ovoid, villous, enclosed in calyx; seed 1, black, wrinkled.

A common weed of waste lands and open places.

Flowering : August - January
& Fruiting



TILIACEAE

Corchorus aestuans Linn. (Syn: *Corchorus acutangulus auct. non Forssk.*)

Vernacular name: Bananalita, Budanalita (O).

Erect or diffuse herb. Leaves ovate to oblong-ovate, serrate, acute, pubescent, 3-nerved. Flowers yellow, axillary, solitary or paired; sepals lanceolate, mucronate, glabrous; petals about as long as the sepals, spatulate; filaments free. Capsule 6-angled, of which 3 angles alate or subulate, apex with horned beaks.

Fairly common weed of grassy waste lands.

Flowering : July - September

Fruiting : October - December



Grewia disperma Rottl. (Syn: *Grewia multiflora auct. non Juss.*)

Vernacular name: Mirga Chara, Gara Bursu (O).

Medium-sized tree; branchlets shortly pubescent. Leaves oblong lanceolate or narrowly elliptic, base acute; 3-nerved, glaucous and slightly stellate-pubescent beneath. Flowers white; sepals 3-nerved; petals orbicular or quadrate, glandular. Drupe didymous or 4-lobed, green.

Uncommon, found in mixed forests and forest glades.

Flowering : June - September

Fruiting : October - January



Grewia subinaequalis DC. (Syn: *Grewia asiatica* anct. non. Linn.)

Vernacular name: Pharsa koli (O); Phalsa (H, Beng.).

Small tree or shrub; branchlets tomentose. Leaves broadly ovate or suborbicular, sometimes slightly lobed, serrate, obtuse, base 5-7-nerved, tomentose when young, mature leaves whitish beneath. Peduncles several, usually exceeding the petioles. Flowers large, in axillary clusters; buds cylindric or elevata, ribbed; sepals stellately pubescent or tomentose. Drupe red or purple, pyrenes 1-2-celled.

Occasional in dry deciduous forests; often planted in gardens for its edible fruits.

Flowering : April - May

Fruiting : June - July



Grewia tiliifolia Vahl

Vernacular name: Dhaman (O); Dhamni (H, Beng).

Small tree; bark smooth: Leaves very broadly ovate to obovate, large, unequal sided, crenate, stipules falcate. Buds ellipsoid to oblong, somewhat tomentose, ribbed. Flowers small, yellow, borne on thick, axillary peduncles. Drupe globose, 2 lobed, bluish-black, edible.

Frequently in hilly forests; often planted in gardens.

Flowering : April - June

Fruiting : September - October



Triumfetta pentandra A. Rich. (Syn: *Triumfetta neglecta* Wight & Arn.)

Vernacular name: Jatajata (O).

Herb, indumentum stellate-tomentose. Leaves ovate, orbicular or rhomboid, lower palmately lobed, upper smaller and often elliptic, serrate, sparsely to densely stellate hairy beneath, 3-5-nerved at base. Flowers yellow, in lateral, extra axillary clusters or by reduction of leaves in interrupted racemes. Capsule ovoid, bristly, pubescent; bristles hispid below.

Common weed through out the area.

Flowering : August - September

Fruiting : October - November



LINACEAE

Hugonia mystax Linn.

Vernacular name: Chulijhinka (O).

Scandent or straggling shrub; branchlets bearing opposite circinate tendrils below the clusters of leaves; young parts rusty tomentose. Leaves often crowded at the ends of the branchlets, obovate-elliptic. Cymes terminal and/ or axillary; lower peduncles spirally hooked. Flowers yellow; sepals ovate-lanceolate, fulvous-pubescent; petals hypogynous. Drupe yellow, orange or red, globose.

A characteristic element of scrub forests.

Flowering : May - June

Fruiting : August - October



MALPIGHIACEAE

Hiptage benghalensis (Linn.) Kurz
(Syn: *Hiptage madhablota* Gaertn.)

Vernacular name : Badamalli, Natanageswar, Madhabilata (O); Basanti, Madhakilata (Beng.); Madhulata, Aneta (H).

Large woody climbing shrub; young branches and leaves tomentose but soon glabrescent. Leaves ovate-oblong, elliptic, shortly acuminate, base acute to rounded, mostly with 2 glands. Flowers white, fragrant, irregular, in terminal and axillary simple or branched fulvo-sericeous racemes; petals clawed, margin fimbriate, inner petal with yellow spot. Samara consisting of globular mericarp with 3 laterally developed prominent wings.

Occasional, in moist and shady forest areas, also planted in gardens.

Flowering : February - March

Fruiting : April - May



ZYGOPHYLLACEAE

Tribulus terrestris Linn.

Vernacular name: Gokhara, Gokhura (O); Gokhuru (H, Beng.); Puncture-vine (E).

Densely hairy prostrate herb; branches 20-60 cm. Leaves opposite, paripinnate, often unequal in a pair; leaflets 4-7 pairs, oblong, base oblique, mucronate. Flowers yellow or light yellow, solitary, pseudo-axillary; sepals lanceolate, silky-hairy; petals oblong-obovate. Disc annular, 10-lobed. Fruit globose, consisting of 5 hairy woody cocci, each with 2 pairs of rigid sharp spines; seeds several in each cocci, with transverse partition between them.

Fairly common and locally abundant in open grassy fields, roadsides and sandy soils.

Flowering : Through out the year.

& Fruiting



AVERRHOACEAE

Averrhoa carambola Linn.

Vernacular name: Karamanga (O, H); Karmal (Beng.); Carombola (E).

Small tree; bark smooth. Leaflets 7-11, subopposite, ovate, broadly oblong, elliptic or elliptic-lanceolate. Flowers pink with deep pink throat, campanulate, in paniced cymes, often from the old wood. Stamens 10, often 5 fertile, alternating with 5 staminodes. Ovary oblong. Berry oblong or ellipsoid, yellowish, 5-ridged or-lobed; seeds with a 2-lobed lacerate aril.

Planted in gardens and homesteads for its edible fruits; occasionally run wild.

Flowering : June - September

Fruiting : October - November



OXALIDACEAE

Biophytum sensitivum (Linn.) DC.

Vernacular name: Chhotalajakuli (O); Jhalai (Beng.); Lakchana, Lajalu (H).

Small tufted herb. Leaves in apical whorls; leaflets 7-14 pairs, terminal leaflets falcate-ovovate, decreasing in size downwards, other leaflets oblong, rachis sparsely hairy. Peduncle densely hairy; often exceeding the leaves; sepals exceeding the ripe capsule. Capsule ellipsoid, 5-grooved; seeds transversely ridged and tubercled.

Very common in shady moist localities and also on rock crevices.

Flowering : July - December
& Fruiting



Oxalis corniculata Linn.

Vernacular name: Ambiliti, Kumari (O); Amrul (Bengal); Amrul sak, Chukutri pati (H); Indian Sorrel (E).

Procumbent herb; stem creeping, rooting at nodes, hairy. Leaves alternate; leaflets subsessile, obcordate, apex emarginate or deeply cordate, base cuneate; ciliate on the margins and lower side. Flowers yellow, in 2-8-flowered pseudo-umbels, pilose. Capsules narrowly oblong, abruptly tapering above, puberulous; seeds ovoid or ellipsoid.

Fairly common in shady moist localities.

Flowering : Through out the year.
& Fruiting



BALSAMINACEAE

Hydrocera triflora (Linn.) Wight & Arn.

Vernacular name: Jalgaura (O); Domuti (Beng.).

Erect aquatic herb; stem 5-angular, fistular, rooting at nodes. Leaves alternate, lanceolate to oblanceolate, narrowed towards the base like an alate petiole, with a gland on either side at the base, shortly and distantly serrate with callous teeth. Flowers pink-white, on short axillary 1-2-flowered peduncles. Drupe dark purple, succulent, globose, beaked.

Sparsely distributed along the margins of Kanjia lake in shallow water.

Flowering : July - August
Fruiting : September - October



RUTACEAE

Aegle marmelos (Linn.) Corr.

Vernacular name: Bela (O); Bal (H, Beng.); Vilwa (Beng.); Bael tree (E).

Small or medium-sized tree; spines 1-2, axillary, strong. Leaves 3-foliolate; leaflets ovate, ovate-lanceolate or elliptic, terminal one larger, entire or crenulate. Flowers white or greenish-white, in lateral and subterminal simple panicles, appearing with the new leaves. Berry globose or ovoid, woody; seeds embedded in a clear mucilage and yellow, sweet, aromatic pulp.

Quite common in dry open forests; often planted near temples and villages.

Flowering : March - April

Fruiting : Ripening after one year



Atalantia monophylla Linn.

Vernacular name: Narguni (O); Wild lime (E).

Large shrub or small tree with spines; trunk often with branched spines. Leaves 1-foliolate, coriaceous, ovate-elliptic or lanceolate, obtuse, emarginate, glabrous. Flowers white, in very short axillary or subterminal corymbs; calyx subequally or irregularly shallowly 3-5-lobed; petals adnate at base to the staminal tube. Berry subglobose, 1-4-seeded.

Occasional, in scrub jungles and open forests:

Flowering : February - March

Fruiting : May - June



***Glycosmis mauritiana* (Lam.) Tanaka**

Vernacular name: Lankabadam (O).

Small tree or large shrub. Leaves compound; leaflets usually 3, sometimes up to 5, elliptic or ovate, glabrous. Flowers white, subsessile, in short, rusty brown tomentose or pubescent panicles; sepals orbicular, rusty; petals suberect or spreading, lanceolate or oblanceolate; stamens very slightly dilated; ovary base constricted above the disc. Berry yellow to pink and red.

Occasional, in shady localities of hilly forests.

Flowering : December - March
& Fruiting



***Glycosmis pentaphylla* (Retz.) DC.
[Syn: *Glycosmis arborea* (Roxb.) DC.]**

Vernacular name: Chauladhua koli, Dubuduba (O); Ashhoura, Malkhila (Beng.); Bannimbu (H).

Shrub. Leaves pinnately 1-5(7)-foliolate, oblong, elliptic or elliptic-oblong, entire or obscurely toothed or crenulate, glabrous. Flowers white, small, in glabrescent or rusty pubescent axillary and terminal panicles; petals erect, obovate. Ovary base scarcely distinct from the disc, very mamillate with large glands. Berry pinkish, glassy, depressed globose, 1-seeded.

Abundant in scrub forests, waste lands and as undergrowth in wet forests.

Flowering : October - December
Fruiting : November - April



Limonia acidissima Linn. (Syn: *Feronia elephantum* Correa)

Vernacular name: Kaitha, Kaintha, (O); Kaith (H); Katbel (H, Beng.); Wood Apple (E).

Tree with axillary spines; bark dark grey or black, rough. Leaves fascicled, rachis and petiole narrowly winged; leaflets 5-7, opposite, elliptic or obovate, glabrous. Flowers in short racemes, on short lateral branches with or without reduced leaves; petals green or reddish, oblong, imbricate; stamens usually 10, bases adnate to the large woody disc; anthers red. Fruit large, globose, grayish-white, many seeded, rind rough, woody.

Usually planted for its edible fruit; often wild in open forests.

Flowering : February - April

Fruiting : November - January



Murraya koenigii (Linn.) Spreng.

Vernacular name: Bhursunga, (O); Barsanga (Beng.); Karry patta, Gandhela (H); Curry leaf tree (E).

Shrub or small tree; branchlets pubescent. Leaves gland-dotted; leaflets 10-25 or more, strongly scented, lanceolate or ovate, asymmetrical, entire or crenulate, lowest much smaller, pubescent, base oblique. Corymbs terminal, many-flowered, pubescent, short-peduncled. Flowers white; petals linear-oblong. Berry ovoid or ellipsoid, black when ripe; seed 1 or 2.

Cultivated and naturalised in suitable habitats through seed dispersal by birds.

Flowering : February - April

Fruiting : May - September



Murraya paniculata (Linn.) Jacq.
(Syn: *Murraya exotica* Linn.)

Vernacular name: Kamini (O, Beng.,H);
Orange Jessamine (E).

Shrub or small tree. Leaves dark-green, gland-dotted; leaflets 3-9, alternate, ovate-elliptic, or rhomboid, terminal one the largest, glabrous, shining. Flowers white, fragrant, in few-flowered axillary or terminal cymes; petals oblong-lanceolate or elliptic, subobtusate; ovary 2-celled. Berry red or yellow, ellipsoid, apiculate, 1-2-seeded, seated on the persistent calyx.

Frequent in hill forests; commonly cultivated in gardens.

Flowering : April - July

Fruiting : December - January



Naringi crenulata (Roxb.) Nicolson
(Syn: *Hesperethusa Crenulata* (Roxb.) M. Boem

Vernacular name: Benta, Baintha,
Ranabael (O); Beli (H).

Small tree with 1-2 axillary spines; branchlets pubescent. Leaf rachis and petiole jointed and winged; leaflets 5-7, opposite, elliptic or elliptic-ovate, crenulate, glabrous, base cuneate, gland-dotted. Flowers white or yellowish, small, long-pedicelled, 4-merous, in very short, close racemes, mostly from leafless axils. Berry globose, black when ripe, bitter in taste.

Common in scrub jungles and dry forests.

Flowering : April - June

Fruiting : Ripens Nov. - December



Toddalia asiatica (Linn.) Lam. (Syn: *Toddalia aculeata* pers.)

Vernacular name: Tundpora (O); Kada-todali (Beng.); Kanj, Jangli-kalimirchi (H).

Rambling or scandent very prickly shrub. Leaves 3-foliolate; leaflets sessile, elliptic, ovate-oblong or lanceolate, crenulate, gland-dotted, glabrous. Flowers white or yellowish, small, in axillary cymes or panicles. Berry orange, globose, 3-5-grooved or lobed.

Very commonly found in the scrub forests and hedges.

Flowering : August - April
& Fruiting



SIMAROUBACEAE

Simarouba glauca DC.

Vernacular name: Mahatila (O).

Small, evergreen tree. Leaves imparipinnate, 20-25 cm long; leaflets obovate, shining, obtuse, glaucous beneath, nerves parallel, prominent beneath; petiolule short. Flowers in lax panicle; white. Drupe ovoid, fleshy, black or deep violet when ripe, glabrous.

Frequently planted in waste lands, hill slopes and along roads; obtain in self sown)

Fowering : March - April
Fruiting : May - June



OCHNACEAE

Ochna obtusata DC.

Vernacular name: Bhuinchampa, Tangan Champa (O).

Small tree or large shrub; bark smooth, pale grey. Leaves often clustered, elliptic, elliptic-lanceolate to obovate, serrate, glabrous, with many fine oblique secondary nerves. Flowers bright yellow, fragrant, in short lateral, sub-corymbose or paniced racemes from the leaf scars; sepals oblong, erect after flowering but again spreading and deep purple in fruit. Drupe 3-10-lobed; lobes ovoid, black when ripe.

Common in rocky places and hill slopes; also in scrub forests.

Flowering : March - April

Fruiting : June - July



BURSERACEAE

Garuga pinnata Roxb.

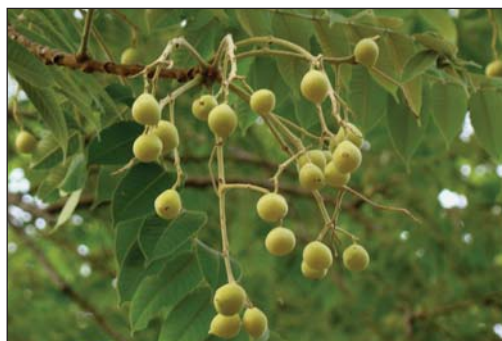
Vernacular name: Handala Mai, Katha Kusum, Sompatri (O); Nil bhadi, Kharpat (Beng.); Ghogar, Kaikar (H).

Large tree; bark grey, smooth or flaky. Leaves alternate, imparipinnate, crowded at the ends of the branches; leaflets 8-16 pairs, sessile or shortly petiolulate, ovate-lanceolate or oblong, crenate-serrate, acuminate, hairy on both sides. Flowers polygamous, yellow, campanulate, in much-branched tomentose panicles. Drupe globose, yellowish-green, with 2-4 pyrenes.

Fairly common in mixed and dry forests; rarely grown in gardens.

Flowering : February - April

Fruiting : June - August



Protium serratum (Wall. ex Colebr.)
Engl. (Syn: *Bursera serrata* Wall. ex
Colebr.)

Vernacular name: Sarupatrimai, Nimbura
mai, Limbru (O); Gutgotya (Beng.); Indian
Red Pear (E).

Tree; twigs pubescent; bark grey, slightly
cracked. Leaves 10-30 cm long; leaflets 3-
4 pairs, oblong or ovate-oblong, serrate.
Panicles lax, tomentose, shorter than the
leaves, from the leaf-axils and axils of the
fallen leaves, borne when the tree is in
leaf. Flowers green; calyx-tube very
shallow with small lobes; petals
spreading above. Drupe globose, obovoid
or ovoid, red when ripe, puberulous, with
1-3 pyrenes, embedded in white pulp.

Common in mixed forests and rarely planted.

Flowering : March - April

Fruiting : May - June



MELIACEAE

Aphanamixis polystachya (Wall.)
Parker [Syn: *Amoora rohituka* (Roxb.)
Wight & Am.]

Vernacular name: Khanda Gilakusum,
Panikusum (O); Harin hana (H); Tikataraj,
Pittarai (Beng.)

Small or medium-sized tree with low
spreading crown; bark smooth. Leaves dark
green, 30-90 cm long, glabrous; leaflets 4-7
pairs, opposite, ovate-oblong. Flowers small
white, in lax simple (female) or branched
(male) spikes; axillary or extra-axillary; calyx
5-partite, lobes obtuse; petals 3; ovary 3-celled.
Capsule 3-valved, yellowish or buff. Seeds 2
or 3, subglobose, chestnut coloured, with a
white linear raphe, scarlet aril.

Fairly common near water courses in
semievergreen forests; planted in gardens.

Flowering : August - September

Fruiting : May - June



Azadirachta indica A Juss. (Syn: *Mehia azadirachita* Linn.)

Vernacular name: Limba, Nima (O);
Neem (H,Beng.);Margosa, Neem Tree (E).

Tree. Leaves 20-40 cm; leaflets 5-9 pairs,
obliquely lanceolate, inequilateral,
sometimes falcate, serrate, glabrous, base
cuneate, oblique. Flowers white, fragrant.
Drupe ellipsoid, yellow, glabrous.

Very commonly planted and often self-
sown; naturalised in some forest areas.

Flowering : February - May

Fruiting : June - July



Chukrasia tabularis A. Juss.

Vernacular name: Pabbachikassi (Beng.);
Chikrasi (H); Indian Red wood,
Chittagong wood (E).

Tall tree; bark reddish-brown; young
branches lenticellate, glabrous. Leaves
pinnate, 30-45 cm long; leaflets 5-12 pairs,
ovate or ovate-oblong, upper leaflets often
larger than the lower, acute or acuminate,
glabrous above, more or less velvety
beneath, base inequilateral. Flowers
white. Capsule ovoid or obovoid reddish
brown.

Planted in the garden.

Flowering : April - June

Fruiting : September - December



Cipadessa baccifera (Roth) Miq. (Syn: *Cipadessa fruticosa* Bl.)

Vernacular name: Nalbali, Pittamari (O); Nalbila (H).

Shrub or small tree. Leaves 12-30 cm long; leaflets 7-11, opposite, elliptic, elliptic-lanceolate, coarsely crenate, crenate-toothed or sometimes entire, acuminate. Flowers in panicles, white, small. Fruit globose, orange-red or black.

Very common in scrub forests and open mixed forests.

Flowering : March - June

Fruiting : May - November



Melia azedarach Linn.

Vernacular name: Mahanimba (O); Gora nim, Mahanim (Beng.); Nim (H, Beng.); Persian lilac, Bastard cedar (E).

Small or medium-sized tree; bark thick and deeply fluted in old trees, smooth in young. Leaves mostly 3-pinnate, pinnae upto 30 cm long; secondary pinnae 1-3-foliolate; leaflets 1-5 pairs, opposite, ovate-lanceolate to lanceolate, serrate, acuminate, glabrescent. Flowers lilac; staminal tube, purple. Drupe yellowish, ellipsoid, with very hard endocarp.

Commonly planted in gardens, roadsides, village surroundings and often self-sown.

Flowering : March - June

Fruiting : October - December



OLACACEAE

Olax psittacorum (Willd.) Vahl (Syn: *Olax scandens* Roxb.)

Vernacular name: Bhadabhadalia (O); Kokoaru (Beng.); Dheniani (H).

Shrub or small tree or subscandent; branches pubescent. Leaves ovate, oblong-elliptic to suborbicular, pubescent or hairy, base rounded. Flowers white, in short racemes; calyx ciliate; petals narrow. Disc thin, cupular. Stamens 7-10, 3-5 fertile; staminodes 2-fid. Fruit yellow or orange, fleshy, subglobose, more than half enclosed in the accrescent calyx.

Abundant in open low forests and scrub jungles.

Flowering : March - April

Fruiting : October - December



CELASTRACEAE

Celastrus paniculata Willd.

Vernacular name: Pengu, Ping (O); Malkangi (Beng.,H).

Scrambling or climbing shrub; branches long, lenticellate. Leaves obovate, elliptic or oblong, serrulate, shortly abruptly acuminate, pubescent beneath especially along the nerves, base acute to rounded. Panicles 5-15 cm; bracts minute. Flowers yellowish or greenish; sepals orbicular, erose; petals ovate oblong, obtuse. Capsule yellow, globose or obovoid, 3-valved, 3-6-seeded; arils red.

Common climber in forests, often reaching top of trees.

Flowering : April - June

Fruiting : October - January



Maytenus emarginatus (Willd.) Ding Hou [Syn: *Gymnosporia montana* (Roth) Benth.]

Vernacular name: Baincho, Gourkasa (O); Vaichigachha (Beng.); Baikal, Tondarsaijhad (H).

Shrub, usually armed with long straight sharp thorns. Leaves mostly obovate, crenulate, glabrous, base cuneate. Flowers white, polygamous, clustered in very short cymes, mostly on short branchlets in the axils of leaves, often on thorns; sepals minutely ciliate; petals 2-3 times as long, oblong; stamens from beneath the pulvinate disc. Capsule coriaceous, pyriform or subglobose, 3-gonous, splitting into 2 or 3 valves; seeds orange, brown or reddish, 1-2 (3) per cell.

Fairly common in thorny scrub forests and sandy soils.

Flowering : November - December

Fruiting : January - March



HIPPOCRATEACEAE

Salacia chinensis Linn. (Syn. *Salacia prinoides* DC.)

Vernacular name: Batra (O).

Tree or erect shrub; twigs ridged. Leaves opposite, elliptic, oblanceolate or oblong, crenate-serate or subentire. Flowers yellowish, 1-3 axillary and from leafless axils; calyx spreading, gamosepalous with deltoid lobes; petals elliptic- oblong or ovate, clawed, margin hyaline; disc large; ovary conical, slightly 3-grooved. Berry scarlet, globose, usually 1-seeded.

Very rare, in scrub forests with compact black soils.

Flowering : March - April

Fruiting : August - September.



RHAMNACEAE

Ventilago denticulata Willd. (Syn: *Ventilago calyculata* Tul.)

Vernacular name : Pitchuli, Chadheithantia, Kantamali (O); Rakto pita (Beng.).

Large woody climber; branchlets pubescent. Leaves ovate-oblong to elliptic-oblong, irregularly crenate-serrate, acuminate or subacute, pubescent beneath, secondary nerves often 4-5. Flowers white, in diffuse densely pubescent racemes; disc villous. Fruit samaroid; wing oblong, pubescent.

Fairly common in mixed forests, climbing on bushes and small trees.

Flowering : September - November
Fruiting : February - April



Ziziphus mauritiana Lam. [Syn: *Ziziphus jujuba* (Linn.) Gaertn.]

Vernacular name: Barakoli (O); Kool, Boroi (Beng.); Ber (H, Beng.); Indian Jujube, Common Jujube (E).

Small, armed, much branched tree; branchlets tomentose with geminate prickles. Leaves oblong, oblong-ovate, minutely serrulate, apex obtuse or rounded, glabrous above, white or brownish tomentose beneath, base oblique, 3-nerved. Cymes or fascicles dense, axillary, tomentose. Flowers yellowish-white. Drupe yellow or orange when ripe, globose or ellipsoid; stone 2-celled.

Frequent in waste places, scrub forests; commonly cultivated and self-sown.

Flowering : March - October
Fruiting : January - March



Ziziphus oenoplia (Linn.) Mill.

Vernacular name: Kanteikoli (O); Siakul, Jangal kul (Beng.); Makai, Makoh (H); Jackal Jujube (E).

Straggling thorny shrub sometimes climbing over trees; trunk armed with large conical spine-tipped woody bosses; branchlets brown-tomentose; thorns usually solitary, small and hooked. Leaves obliquely ovate or ovate-lanceolate or oblong-ovate, faintly crenate, silky pubescent or tomentose beneath, 3-5-nerved. Cymes axillary, brown-tomentose; petals cucullate. Drupe black when ripe, globose; stone rugose, compressed, 1-seeded.

Quite abundant in scrub jungles, village thickets, hedges and waste places.

Flowering : June - September

Fruiting : October - January



Ziziphus rugosa Lam.

Vernacular name: Chunkoli, Simukoli (O); Suran Churna (H).

Large armed shrub or small tree with long pendant scandent branches; young parts tomentose. Leaves elliptic, suborbicular or orbicular-ovate, serrulate, obtuse, glabrescent or brown-pubescent beneath, 3-5-nerved, base usually cordate. Flowers greenish-yellow, in peduncled cymes, arranged in large tomentose panicles or the lower cymes axillary. Drupe globose or pyriform, creamish-white; stone thin-walled, 1-celled and 1-seeded; seed ovoid, turgid.

Occasional in open forests.

Flowering : March - April

Fruiting : May - July



Ziziphus xylopyrus (Retz.) Willd

Vernacular name: Gotha, Gotha bara, Gotha koli, Ghanta (O), Kat-ber, Gote (H).

Large straggling and thorny shrub or a small tree, armed with spines; branchlets tomentose and often unarmed. Leaves broadly elliptic, ovate or ovate-oblong, serrulate, more or less pubescent or hairy beneath. Flowers green or greenish-white, in axillary peduncled cymes, Drupe green, globose, 2-4-, usually 3-celled, stone very hard and woody. Seeds oblong, usually one in each cell.

Fairly common in open forests, scrub forests etc.

Flowering : March - June

Fruiting : October - January



VITACEAE

Ampelocissus latifolia (Roxb.) Planch (Syn: *Vitis latifolia* Roxb.)

Vernacular name: Pani kacha, Kanjianoi (O); Govila (Beng.); Panibel (H).

Large climber, glabrous or nearly so except the rachis of the inflorescence; new stems glaucous, hollow. Leaves simple, 3-7-angled or lobed, mealy when very young, irregularly crenate-serrulate or dentate, palminerved, cordate or retuse at base. Flowers brown-red, in pyramidal paniced cymes, bearing forked tendril; disk thick, 5-furrowed, becoming adnate and often showing as a ring on the fruit. Berry black, succulent.

Frequent in open forests, bushes and scrub jungles, gregarious in rainy season.

Flowering : June - August

Fruiting : August - October



***Cayratia pedata* (Lour.) Juss. ex Gagnep. (*Vitis pedata* Wall. ex Wight & Am.)**

Vernacular name: Pitapotala (O); Goalilata (Beng.).

Large hairy climber; stem weak. Leaves pedately 5-7-foliolate, hairy; leaflets 10-20 cm long, lateral pedately lobed, inequilateral, subentire or serrate, base cuneate or often cordate. Tendril forked at the ends. Flowers white, 4-merous, small, in large subcorymbose cymes. Berry subglobose, depressed, 2-4-seeded; seeds convex and concave, the concave side closed by a membrane.

Quite common in bushes, hedge and village thicket in post monsoon period.

Flowering : August - Decembe
& Fruiting



***Cayratia trifolia* (Linn.) Domin (Syn: *Vitis trifolia* Linn.)**

Vernacular name: Amala lata, Ambiliti (O); Amalalata, Bundal (Beng.); Amar lati (H); Fox grape (E).

Herbaceous climber; stems thin, succulent, compressed; young branchlets striate, pubescent or villous. Leaves 3-foliolate; leaflets crenate, coarsely serrate or irregularly dentate. Tendril slender, branched. Cymes thinly hairy, lax, divaricating, long-peduncled. Flowers small, greenish or white. Berries black, depressed globose, 2-4-seeded.

Abundant during rainy seasons; climbing on trees, bushes and hedges.

Flowering : June - August
Fruiting : October - November



Cissus quadrangula Linn. (Syn: *Vitis quadrangularis* Wall. ex Wt. & Arn.)

Vernacular name: Hadabhanga, Hadasinkuda (O); Horjor (H, Beng.).

Rambling shrub, often climbing over bushes and trees; stems fleshy, 4-angled, jointed, 4-winged or margined, leafless or bearing leaves at the nodes during rainy and cold seasons. Leaves short-petioled, very broadly ovate or reniform.. Tendril simple. Flowers greenish-white, in short-peduncled, umbellate cymes. Berries obovoid or globose, 6-7 mm diam., red when ripe, 1-seeded. Seeds ellipsoid.

Common on rocks, scrub jungles and in village thickets.

Flowering : April - January
& Fruiting



Cissus vitifolia Linn. [Syn: *Vitis vitifolia* (Linn.) Hairdes]

Vernacular name: Jangli angur (O,H).

Weak hoary-pubescent climber; bark corky. Leaves simple, broadly ovate or orbicular-ovate, 3-5-angled, irregularly serrate or coarsely dentate, 3-nerved at base, densely curly pubescent or tomentose beneath. Tendril simple. Cymes umbellate, compound, tomentose. Flowers white, 4-merous. Berries pale purple, ellipsoid, 1-seeded, on deflexed pedicels.

Common in forest edges and road sides.

Flowering : July - October
Fruiting : August - November



LEEACEAE

Leea indica (Burm.f.) Merr.

Vernacular name: Kalad chana (O); Kukur Jhiwa (Beng., H).

Large shrub or small trees. Leaves 2-3-pinnate; leaflets elliptic-oblong, lanceolate or ovate, doubly serrate. Corymbs large, paniced, 2-3-chotomous, Flowers greenish or white; staminal tube yellowish, lobes shallowly notched. Berry black, 3-6-seeded.

Common in hill forests and in shady moist localities around villages.

Flowering : August - October
& Fruiting



SAPINDACEAE

Allophylus serratus (Roxb.) Kurz [Syn: *Allophylus cobbe* (Linn.) Raeusch.]

Vernacular name: Khandkoli, Kunarpurnami koli (O); Rakhalphul (Beng.).

Much branched shrub, branchlets white, or grey, lenticillate. Leaves 3-foliate; leaflets elliptic, obovate, broadly ovate or rhomboid-ovate, serrate or dentate-serrate except near base, glabrescent. Racemes axillary, pubescent, usually unbranched. Flowers white, clustered; sepals ciliate; petals cuneate, hairy in the centre; stamens 8, inserted inside the disc. Fruit 1-2-lobed, glabrous, orange-red.

Common in scrub forests among bushes and in village hedges.

Flowering : July - August
Fruiting : September - October



Cardiospermum helicacabum Linn.

Vernacular name: Photka, Kanphuta, Mayajal (O); Kanphuti (H); Lataphatkari, Sibjhul (Beng.); Baloon vine heart seed (E).

Climbing, tendrils-bearing herb with wiry stems and branches. Leaves biternate; leaflets ovate-lanceolate, deeply incised, coarsely dentate, acuminate. Flowers white, small, irregular, polygamo-dioecious, in axillary racemes, the lowest pairs of pedicels transformed into spiral tendrils. Sepals and petals 4 each. Stamens 8, excentric. Fruit a membranous inflated 3-lobed capsule, loculicidally 3-valved; seeds globose, black, arillate at base.

Quite common in waste places, among hedges and thickets; also abundant in dry crop fields.

Flowering : April - October
& Fruiting



Lepisanthes tetraphyllus (Vahl) Radlk. [Syn: *Hemigyrosa canescens* (Roxb.) Bl.]

Vernacular name: Panikusum (O).

Small tree; young twigs pale pubescent. Leaves paripinnate; leaflets 2 pairs, narrowly oblong. Flowers in racemiform panicles, often fascicled, axillary or mostly from the old wood, dense-flowered. Flowers white, irregular; sepals 5, orbicular or orbicular-oblong, connate at base; petals 4-6, usually 4, oblong;; stamens 8, hypogynous.. Drupe 3-gonous, coriaceous, yellow tomentose, with mucilofinous pulp.

Fairly common in sandstone hills and low forests.

Flowering : April
Fruiting : April - May



Schleichera oleosa (Lour.) Oken (Syn: *Schleichera trijuga* Willd.)

Vernacular name: Kusum (O, H, Beng.).

Tree with dense foliage. Leaves paripinnate, leaflets 2-4 pairs, opposite or subopposite, sessile or very shortly petiolulate, elliptic or oblong, entire, rarely repand, obtuse, acuminate or acute, glabrous. Flowers yellowish. Drupe ovoid sharply pointed. Seed compressed, brown.

Fairly common in adjacent forest areas; also planted.

Flowering : February - March

Fruiting : June - August



ANACARDIACEAE

Anacardium occidentale Linn.

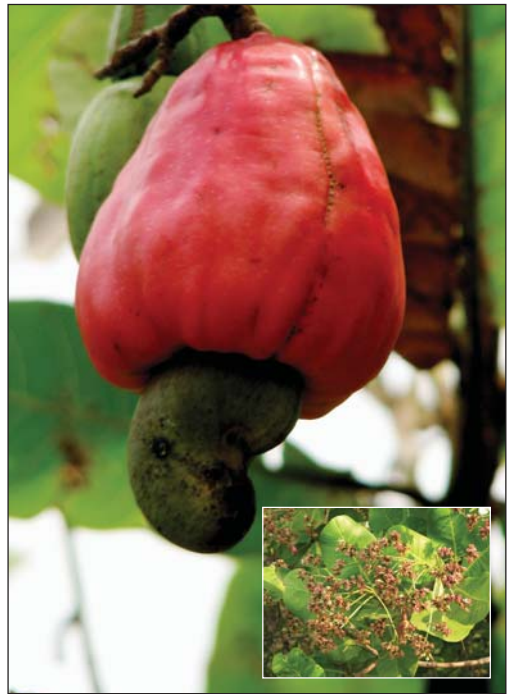
Vernacular name: Kaju (O, H, Beng.); Lanka Amba (O); Cashew nut tree (E).

Small tree, often branched from near the base. Leaves simple, alternate, obovate, sometimes broadly elliptic, rounded or emarginate at apex, coriaceous. Flowers pinkish. Drupe reniform, greyish-brown, seated on fleshy yellowish or reddish hypocarp. Seed reniform.

Commonly planted as a cash crop for its edible nuts in degraded forest sites.

Flowering : March - April

Fruiting : April - May



Lannea coromandelica (Houtt.) Merr.
(Syn: *Odina wodier* Roxb.)

Vernacular name: Mahi, Raj-mahi, Jia (O);
Jhingan Mohin (H); Jeol (Beng.).

Small to moderate-sized tree. Branchlets,
leaves and inflorescences stellate hairy.
Leaves clustered at the ends of thick
branchlets. Leaflets 5-9 or more, ovate or
ovate-oblong, acuminate, oblique at base,
puberulous beneath. Flowers small,
yellowish green. Drupes red, curved,
oblong, compressed.

Fairy common in sandstone hills and
degraded scrub jungles.

Flowering : March - April

Fruiting : April - June



Mangifera indica Linn.

Vernacular name: Amba (O); Am (H,
Beng.); Mango (E).

Large tree. Leaves lanceolate, elliptic to
narrowly elliptic, acute to acuminate,
glabrous, veins reticulate. Flowers
greenish-yellow, small. Drupe very
variable in size, shape and colour,
usually ovoid, yellow when ripe, with
large stone, thin epicarp and yellow or
orange coloured fleshy and juicy
mesocarp. Stone thick, with fibrous coat,
very hard.

Abundant and self-sown in forests; also
planted in gardens and homesteads.

Flowering : January - March

Fruiting : April - May



Semecarpus anacardium Linn. f.

Vernacular name: Bhalia (O); Bhela (Beng.); Marking-nut tree (E).

Small tree; young branchlets pubescent or tomentose. Leaves obovate or oblong, clustered at the ends of the branches, apex rounded, strongly nerved. Flowers dull greenish-yellow, sub-sesile. Drupe oblong or obliquely ovoid, black when ripe, seated in the orange cupular hypanthium.

Occasional in forests, also planted in gardens.

Flowering : June - September

Fruiting : November - December



Spondias pinnata (Linn. f.) Kurz (Syn: *Spondias mangifera* Willd.)

Vernacular name: Ambada (O); Ambra (Beng., H); Hog Plum (E).

Medium-sized tree. Bark smooth, white, very thick. Leaves mango-smelling, long-petiolate; leaflets 4-6 pairs, oblong, entire, acuminate. Flowers white, sessile. Drupes yellowish, large, ellipsoid, with a hard, somewhat fibrous and slightly groove, usually 1-3-seeded.

Naturalised in gardens and near human habitation.

Flowering : February - March

Fruiting : Ripen in the following January.



CAESALPINIACEAE

Bauhinia purpurea Linn.

Vernacular name: Barada, Kuilari (O); Raktakanchan, Koiral (Beng.); Kaliari, Khairwal (H);

Moderate-sized tree. Bark ashy or dark brown, glabrous. Leaves oblong, deeply 2-lobed, 9-11-nerved, minutely puberulous on the nerves beneath; lobes obtuse to subacute. Flowers purple, large, in terminal paniced racemes. Pods narrow below, flat, dehiscent when ripe, with thin coriaceous twisted valves.

Occasional in forest edges; often planted. The tender leaves and pods are eaten as vegetables.

Flowering : September - February

Fruiting : February - March



Bauhinia racemosa Lam.

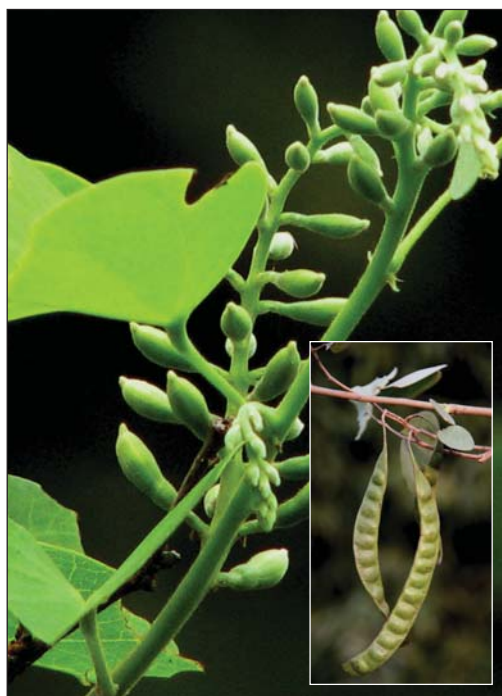
Vernacular Name: Ambalota, Ambanasia, Kathal (O); Banraj (Beng.); Gurial, kachnal, Ashta (H).

Small tree; branches pubescent, bark dark grey, rough. Leaves 2-lobed, broader than long, lobes obtuse or rounded, glaucous beneath, 7-9-nerved, base shallowly cordate. Racemes simple, sparsely pubescent. Flowers whitish or creamish-white. Pods thick, glabrous, turgid, septate. Seeds broadly oblong.

Very sparsely distributed in the area, in damper localities.

Flowering : April - June

Fruiting : October - January



***Bauhinia variegata* Linn.**

Vernacular name : Kanchana (O); Rakta kanchan, Swetlonchon (Beng.); Kachnar, Khairwal, Mohota (H).

Moderate-sized tree. Bark grey, longitudinally cracked. Leaves 2-lobed, lobes rounded, overlapping, grey glaucous and pubescent beneath, 11-15-nerved. Flowers white or purple, in short racemes, mostly from the leafless axils. Pods glabrous, very flat. Seeds sub-orbicular.

Planted in gardens, park and alongroads.

Flowering : February - March

Fruiting : April - May



***Caesalpinia bonduc* (Linn.) Roxb.
(Syn: *Caesalpinia crista* auct. non Linn.)**

Vernacular name: Gila (O); Nata-karanj (Beng.); Kat-karanj, Karanju (H); Bonduc nut (E).

Large climber with straight or recurved prickles. Branchlets fulvous hairy. Stipules persistent, foliaceous. Rachis prickly; leaflets 8 pairs, elliptic, oblong or ovate-oblong, mucronate, glabrous or pubescent beneath. Flowers yellow, in elongated racemes. Pods broadly oblong, prickly, dehiscent, 1-2-seeded.

Common in shrub jungles and roadside thickets.

Flowering : August - October

Fruiting : December - April



Caesalpinia pulcherrima (Linn.) Sw.

Vernacular name: Godibana (O), Krishna chura (Beng.); Gulutora (H); Peacock flower, Barbados pride (E).

Much branched shrub or small tree. Leaf-rachis smooth; leaflets 8-10 pairs, broadly oblong, apex rounded or emarginate and often apiculate, glabrous. Flowers yellow or red, in elongate, axillary and terminal racemes. Pods oblong flat, apex rounded, upper suture ending in a sharp beak. Seeds oblong or rectangular.

Introduced as a hedge plant or as a garden ornamental.

Flowering : Most part of the year.
& Fruiting



Cassia absus Linn.

Erect, viscid-hairy herb. Leaflets 2 pairs, ovate, rhombic-ovate, obtuse or subobtuse, mucronate, rarely rounded, pubescent. Rachis with subsessile glands between leaflets. Racemes terminal. Flowers yellow or tinged with red. Pods flat, scatteredly strigose. Seeds black, shining, ovoid.

Fairly abundant in wasteplaces and grassy field during post-monsoon period.

Flowering : August - November
& Fruiting



Cassia fistula Linn.

Vernacular name: Sunari, (O); Amartas (Beng., H); Indian laburnum (E).

Small or medium-sized tree. Leaflets 4-8 pairs, ovate, ovate-lanceolate or ovate oblong, acute or acuminate, glabrous, with close strong secondary nerves. Flowers light yellow, in long pendulous racemes. Pods short-stipitate, cylindrical, long, drooping, black when mature, indehiscent. Seeds many, flat, transverse.

Quite common in dry thorny forests and sandstone hills; often planted as an avenue tree and garden ornamental.

Flowering : April - June

Fruiting : Most part of the year;
deciduous in March-April.



Cassia mimosoides Linn.

Erect or diffuse herb; stem hairy with curved hairs. Leaves 5-9 cm long; petiole with a sessile gland at the top; stipules subulate with filiform tip and a broad corlate base strongly nerved; leaflets 40-70 pairs, sensitive, closing up. Flowers yellow, solitary or rarely 2. From a pair of extra-axillary bracts; pedices very slender, having Pods linear, minutely strigose, 15-25-seeded.

Abundant in wastelands and roadsides during post-monsoon periods.

Flowering : September - December
& Fruiting



Cassia occidentalis Linn.

Vernacular name: Kala Chakunda, Bana Chakunda (O); Kalkashonda (Beng.); Kasandi (H, Cottee senna (E).

Erect undershrub. Petiole with a large gland above its base. Leaflets 4-5 pairs, ovate or ovate-lanceolate. Flowers yellow, in axillary and terminal racemes, sometimes paniced. Pods flattened, slightly falcate, obtuse at apex, many-seeded, septate between the seeds. Seeds ovoid, longitudinal.

Gregarious along roads and waste places in rainy season.

Flowering : September - November

Fruiting : December - February



Cassia tora Linn.

Vernacular name: Chakunda, Dhala Chakunda (O); Panevar (Beng.,H); Sickle pod (E).

Herb or under-shrub. Leaflets 3 pairs, sessile or shortly petioluled, obovate, obtuse, rounded or retuse; rachis with linear glands between two lowest pairs of leaflets. Flowers yellow. Pods short-stipitate, sub-terete. Seeds many, brown, oblong.

Abundant in field bunds, road sides and waste places, often found in pure formations.

Flowering : September - November

Fruiting : November - December



***Delonix regia* (Boj. ex Hook.) Raf.**
(Syn: *Poenciana regia* Boj. ex Hook.)

Vernacular name: Krushnachuda, Gulmohar (O); Gulmohar (H); Flamboyant Flame tree, Gul Mohar (E).

Deciduous trees. Leaves bipinnate, feathery, upto 60 cm long; stipules small, pectinate with fine linear segments; pinnae 11-18 pairs, opposite; leaflets many, small. Flowers large, more than 10 cm across, showy, orange or red, in terminal corymbs; calyx lobes deltoid; petals long-clawed, uppermost dissimilar, lined with red or orange; stamens nearly equal or shorter than petals. Pods 30-60 cm long, flat, woody, dehiscent; seeds narrowly oblong.

Very commonly planted in gardens, road sides and in parks; also run wild as an escape.

Flowering : April - June

Fruiting : July - November



***Parkinsonia aculeata* Linn.**

Small armed trees. Stipulary thorns recurved. Leaves bipinnate; pinnae 2-6, in shortened main rachis; leaflets numerous, linear-oblong. Flowers in short, lax, axillary racemes; pedicels long; bracts small, caducous; sepals membranous, subequal; petals 5, spreading, with short broad claws; stamens 10, free. Pods linear, torulose, turgid at the seeds, finally dehiscent; seeds brown, oblong.

Frequent in sandy localities, waste places; planted along roads but naturalized in many places.

Flowering : November - February

Fruiting : March - September



Peltophorum pterocarpum (DC.)
Backer ex K. Heyne [Syn: *Peltophorum*
ferrugineum (Decne) Benth.]

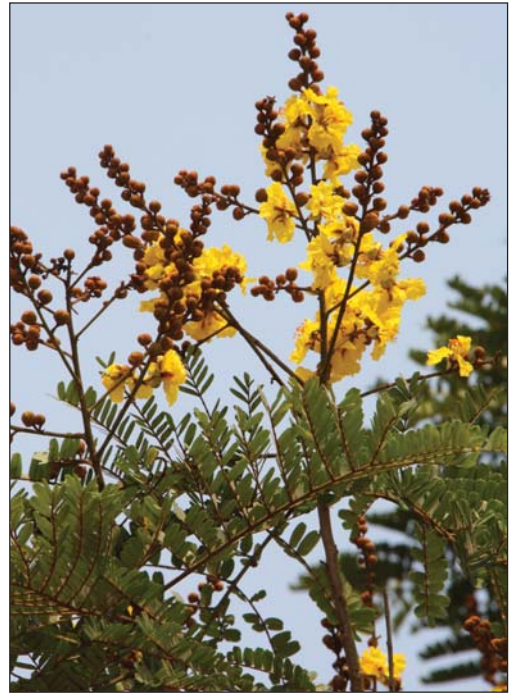
Vernacular name: Radhachuda (O); Pila
Gulmohar (H); Golden Flamboyant,
Copperpod (E)

Medium-sized dark-foliaged tree;
branchlets rusty-tomentose. Leaves evenly
bipinnate; stipules fugacious; leaflets
opposite, 20-30, close, oblong,
emarginated, base oblique. Flowers showy,
yellow, in axillary and terminal paniced
rusty-tomentose racemes. Calyx-tube short,
lobes reflexed; petals 5, spreading, ovate-
orbicular. Pods shortly stalked, oblong,
margins wing-like, indehiscent; seeds
usually 3, brown, oblong.

Frequently planted in parks, gardens,
wastelands and also as an avenue plant.

Flowering : March - May

Fruiting : April - December.



Saraca asoca (Roxb.) de Wilde (Syn:
Saraca indica auct. non Linn.)

Vernacular name: Ashok (O, E, Beng., H).

Small tree. Leaves subsessile, dark green;
leaflets 3-6 pairs, large, oblong or oblong-
lanceolate, acute or acuminate, sometimes
lanceolate. Corymbs dense, often
subterminal on short special branchlets
together with a single leaf. Flowers bright
orange-scarlet. Pods large, slightly
oblique both ends; seeds oblong, truncate.

Grown in gardens as an ornamental and
medicinal plant; wild in forests of
Odisha.

Flowering : March - April

Fruiting : July - September



Tamarindus indica Linn.

Vernacular name: Kainyan (O); Tentuli (O, Beng.); Imli, (H); Tomarind Tree (E).

Large tree. Leaflets 10-20 pairs, small, close, linear-oblong, base and apex obtuse. Flowers in lax drooping racemes. Petals yellow dotted with red. Pods linear-oblong, septate between seeds. Seeds reddish-brown, polished.

Occasionally planted in gardens and roadsides; often run wild.

Flowering : April - June

Fruiting : December - March



MIMOSACEAE

Acacia auriculiformis A. Cunn. ex Benth.

Vernacular name: Akasi, Akasia (O)

Small or moderate-sized tree; bark white; branchlets glabrous and glaucous, slightly angular. Leaves transformed into falcate-oblong phyllodes. Flowers small, yellow, in slender axillary spikes. Pods hard, almost woody, much coiled in an irregular spiral, with the outer edge often sinuate.

Introduced, but wild through out the area with adequate regeneration.

Flowering : Most part of the year.
& Fruiting



Acacia catechu (L.f.) Willd.

Vernacular name: Khair (Beng., H); Khairo (O); Kuth (Beng.); Cutch Tree (E).

Small tree; bark dark brown; armed with hooked spines. Leaf-rachis with a gland below the pinnae and one between the upper. Leaflets mostly 12-20 pairs, sessile, subacute or obtuse. Flowers white or yellowish, crowded in pubescent spikes. Pods often irregularly constricted, obtuse, mucronate or beaked, dehiscent.

Introduced to the garden, wild in forests.

Flowering : July - September

Fruiting : December



Acacia leucophloea (Roxb.) Willd.

Vernacular name: Gohira (O); Safed Babul (Beng.); Safed Kikar (H).

Small, armed trees spines geminate strongly; bark white; branchlets and leaves tomentose. Leaves 3-8 cm long; rachis with a gland; pinnae 6-12 pairs. Leaflets 15-30 pairs, linear, glabrous. Flowers white, numerous, in large terminal panicles. Pods sessile, curved, tomentose; seeds 8-10.

Frequent in degraded and eroded soils.

Flowering : August - October

Fruiting : December



Acacia nilotica (Linn.) Delile ssp. *indica* (Benth.) Brenan. [Syn: *Acacia arabica* auct. non (Lam.) Willd.]

Vernacular name: Babul (O, Beng.,H); Kikar (H); Black Babul Tree (E).

Tree; bark deep-brown or black, deeply cracked. Branches with long, straight, white, stipular spines. Leaf-rachis with a cup-shaped gland at the base of the pinnae. Leaflets 10-20 pairs, linear, sub-obtuse, glabrous or nearly so. Flower-heads yellow. Pods grey-downy, moniliform, indehiscent.

Planted in the garden and roadsides.

Flowering : August - December

Fruiting : January - April



Acacia pennata (Linn.) Willd.

Vernacular name: Dantari, (O); Kuchui (Beng.); Biswal, Aila (H).

Large woody climber. Branches usually 5-angled with lines of small prickles on the angles, grey or fulvous tomentose. Leaflets 40-80 pairs, sessile, linear, apex acute to rounded, glabrous or pubescent. Flower-heads in terminal or axillary racemes. Flowers creamish-white. Pods thin, flat, brown or purple, glabrous, sutures strong. Seeds black, oblong.

Quite gregarious in scrub jungles and sandstone hills.

Flowering : May - August

Fruiting : October - December



Acacia polyacantha Willd. [Syn: *Acacia suma* (Roxb.) Buch.-Ham ex Voigt]

Vernacular name: Sami (O); Saikanta, Sankanta (Beng.).

Small trees; bark whitish; branchlets and petioles grey-tomentose. Leaves 10-25 cm long, large gland above base or petiole; stipular thorn straight or hooked; rachis softly prickly; pinnae 10-20 pairs. Flowers creamish-white, in axillary spikes. Pods oblong, stipitate, 5-8 seeded.

Occasional, also planted in gardens.

Flowering : August - September

Fruiting : December - April



Adenanthera pavonina Linn.

Vernacular name: Manda Kaincha (O); Raktakanchan (Beng.); Barigumchi (H); Coral wood, Red wood (E).

Large tree. Leaves 2-pinnate; pinnae 4-6-pairs, distant; leaflets 5-6 pairs or more, alternate, oblong, obtuse, apiculate, puberulous. Flowers yellowish, small, in axillary and paniced spiciform racemes. Pods falcate. Seeds bright scarlet red, globose.

Introduced as an ornamental plant; often self-sown.

Flowering : March - June
& Fruiting



Albizia lebbbeck (Linn.) Benth.

Vernacular name: Sirisa (O); Siris (O, H, Beng.); Siris tree (E).

Large or moderate-sized tree. Young leaves and inflorescence densely tomentose. Leaflets 5-8 pairs, rarely up to 13 pairs, shortly petioluled, oblong or obovate-oblong, rounded or obtuse, glabrescent, 4-5-nerved. Flowers white, fragrant. Pods yellow, oblong, drooping, glabrous. Seeds oval.

Commonly planted, but self-sown at suitable localities.

Flowering : April - June

Fruiting : October - January



Albizia odoratissima (Linn.f.) Benth.

Vernacular name: Tinia, Kala Sirisa (O); Kakur, Siris (Beng.)

Large or moderate-sized tree; branchlets and panicles densely pubescent. Leaf rachis with a gland below the upper most pair of pinnae; pinnae 2-5 pairs; leaflets 6-24 pairs. Flowers sessile, white, hairy, in large, terminal panicles. Pods brown, 10-12 seeded.

Sparsely distributed through out the area in forest glades.

Flowering : May - June

Fruiting : November - February



Leucaena leucocephala (Lam.) de Wit.
(Syn: *Leucaena glauca* Benth.)

Vernacular name: Nagarjun, Kubabul (O).

Small tree. Leaflets 10-15 pairs, rather distant, sessile, linear, acute to obtuse, glabrous or nearly so above, finely pubescent beneath, base oblique, mid-nerve towards distal margin. Flowers white, in globose heads. Pods flat. Seeds ovoid, brownish-black.

Introduced but thoroughly naturalized and weedy through the area.

Flowering : May - June

Fruiting : August - October



Mimosa himalayana Gamble (Syn:
Mimosa rubicaulis auct. non Lam.)

Vernacular name: Kirkichi, Kirkichikanta (O); Shiah kanta (H); Kuchikanta (Beng.).

Erect or sub-erect, prickly shrub. Branches angular, densely tomentose when young, with slightly curved prickles. Leaflets 14-20 pairs or only 10 on the basal pinnae; oblong, obtuse or subacute, often mucronate. Flowers pink, in globose heads. Pods linear-oblong, 1-seeded, glabrous.

Frequent in thorny scrub forests and in hedges.

Flowering : September - October

Fruiting : November - January



Mimosa pudica Linn.

Vernacular name: Lajakuli (O); Lajak, Kajak (Beng.); Lajawanti (H); Touch me not, Sensitive plant (E).

Small prostrate prickly herb. Leaves spreading, long petioled; pinnae 4, digitate, leaflets sessile, linear, subacute, ciliate beneath and on the margins. Heads pink; flowers bisexual. Pods clustered, flat, slightly undulate, jointed, with weak prickles on the sutures. Seeds 2-5, compressed, ovoid.

Very gregarious in wastelands, roadsides, scrub jungles in exposed places.

Flowering : August - May
& Fruiting



Samanea saman (Jacq.) Merr. [Syn: *Enterolobium saman* (Jacq.) Prain]

Vernacular name: Chakunda, Bada Chakunda, Gachha Chakunda, Nidrabati (O); Rain Tree (E).

Large tree with short trunk and large spreading crown; bark dark grey. Leaves 2-pinnate; pinnae 3-7 pairs; leaflets 4-10 pairs, rhomboidal. Peduncles 1-3-nate, axillary or apparently racemed. Flower-heads pink; filaments very long, pink. Pods fleshy, black, sutures thickened.

Frequently planted in road sides, often wild through out the area.

Flowering : March - April
Fruiting : May - July



Xylocarpa xylocarpa (Roxb.) Taub. (Syn: *Xylocarpa dolabriformis* Benth.)

Vernacular name: Kangada, Tangan, Katha Siali (O); Tangan (H)

Small tree; branchlets brown-tomentose. Leaves 2-pinnate, petiole with a gland at the tip; pinnae 1 pair; leaflets commonly 5-6 pairs, ovate-oblong. Flowers sessile, yellowish-white, in globose peduncled heads. Pods flat, woody, shoe-shaped, rusty-tomentose; seeds brown, broadly oblong.

Quite frequent in forests on sandstone hills.

Flowering : April - May

Fruiting : November - April



FABACEAE

Abrus precatorius Linn.

Vernacular name: Kaincho(O);, Sonkanch (Beng.); Rati, (H); Indian Liquorice (E).

Slender twining shrub. Leaves paripinnate; leaflets 10-20 pairs, opposite, oblong, obtuse, glabrous or silky beneath. Flowers pinkish-white or white, in crowded racemes. Pods oblong, turgid, 3-5-seeded. Seeds subglobose, polished, usually scarlet with a black eye but sometimes white.

Common in scrub jungles, hedges and thickets.

Flowering : August - September

Fruiting : November - March



Aeschynomene aspera Linn.

Vernacular Name: Sola (O, Beng., H); Sola Pith Plant(E).

Erect perennial herb or under-shrub; stem pith-like; often floating on water surface. Leaflets 25-50 pairs, linear, 1-nerved. Racemes corymbose, simple or branched. Flowers yellow. Pods nearly straight, often indented on both sutures, joints 4-8, smooth or usually warted or echinate.

Common in ponds and ditches.

Flowering : August - October

Fruiting : November - January



Aeschynomene indica Linn.

Vernacular name: Sola Karana (O); Bhat-sola, Kath Shola (Beng.); Laugauni (H).

Erect, slender, suffruticose annual herb. Branches terete, more or less scabrid with small warts. Leaflets sessile, mostly alternate, linear-oblong, obtuse, sometimes apiculate, glabrous, 1-nerved. Flowers yellowish or pinkish-yellow. Pods stalked, linear-oblong, slightly curved or nearly straight, joints 5-10, smooth or papillose.

Frequent in swamps, ditches, rice fields and banks of water bodies.

Flowering : July - November
& Fruiting



Alysicarpus vaginalis (Linn.) DC.

Diffuse or ascending herb. Leaves lanceolate, oblong, ovate-oblong or ovate-elliptic, apex rounded to acute, base rounded or subcordate. Racemes 6-12-flowered. Flowers flesh-coloured or pinkish, small. Pods subterete, reticulately veined; joints 4-8, longer than broad.

Very common in wastelands and grassy localities during rains

Flowering : September - January
& Fruiting



Atylosia scarabaeoides (Linn.) Benth.

Vernacular name: Bana Kolatha, Kolathia (O); Ban-kulthia (O, Kui); Banur Kalai (Beng.).

Slender pubescent climber. Leaflets elliptic, obovate-oblong, densely pubescent below, strongly nerved. Flowers yellow or tinged with reddish-brown. Pods oblong, straight, covered with long soft brownish hairs. Seeds, grey-brown, oblong-rounded.

A common climber in scrub forests and way sides, especially in post-rainy season.

Flowering : August - January
& Fruiting



***Butea monosperma* (Lam.) Taub.**
(Syn: *Butea frondosa* Koenig. ex Roxb.)

Vernacular name: Palasa (O); Paras, Palas (B); Dhak (H).

Small or medium-sized, deciduous tree; trunk crooked. Leaves 3-foliolate, rarely 1-foliolate; stipules linear-lanceolate; leaflets rigidly coriaceous, grey-tomentose or pubescent beneath. Flowers bright orange-red. Pods stalked, valvate brown. Seeds oval, compressed, brown.

Fairly common in forests, especially in eroded sites.

Flowering : February - April

Fruiting : May - July.

Leafless during flowering.



***Butea superba* Roxb.**

Vernacular name: Lata Palas (O, Beng.); Palas lata (H).

Large woody climber. Leaves 3-foliolate; leaflets sub-rugose and dull above, young leaves hairy, especially on the nerves beneath. Flowers bright orange-red, along the leafless branches on racemes. Pods long stalked, densely rusty-tomentose.

Occasional, in scrub forests.

Flowering : March - April

Fruiting : June - July



Canavalia virosa (Roxb.) Wt. & Arn.

Vernacular Name: Maharada, Kalasimba (O); Makhan simb (Beng.); Kadsambal (H); Sword bean (E).

Perennial climber, stems usually reddish-green, glabrous. Leaves trifoliate; terminal leaflets broadly elliptic-oblong or broadly ovate. Flowers large, lilac-purple, reflexed in close-flowered racemes. Pod linear-oblong, straight, somewhat compressed. Seeds 4-8, ellipsoid or ovoid, mottled.

Fairly common in hedges, scrub or open forests; the tender fruits are eaten as a vegetable.

Flowering : August - December

Fruiting : March - April



Clitoria ternatea Linn.

Vernacular name: Aparajita (O, H, Beng.)

Slender twiner; stem terete. Leaves imparipinnate, leaflets mostly 5, elliptic. Flowers blue or white, solitary on axillary peduncles; bracteoles large, foliaceous, persistent; standard spoon-shaped. Pods linear, flat, 6-10-seeded.

Commonly grown in gardens; often run wild as an escape.

Flowering : July - October

Fruiting : November - December



Crotalaria albida Heyne ex Roth

Vernacular name: Bana Jhunuka (O), Ban Methi (H).

Erect or diffuse herbs; root stock woody; branches silky pubescent. Leaves simple, linear-oblong or lanceolate, pellucid-punctate. Flowers yellow, in terminal or lateral racemes, 6-20 flowered; calyx very silky. Pods oblong-cylindric, slightly exserted, 6-8 seeded.

Fairly common as undergrowth in scrub jungles and in rock crevices.

Flowering : September - January
& Fruiting



Crotalaria pallida Ait. (Syn: *Crotalaria striata* DC.)

Vernacular name: Junjunka (O); Sensan (H).

Undershrub. Leaves 3-foliolate; leaflets broadly elliptic or obovate, obtuse, rounded or retuse, glabrous or sparsely hairy, often glaucous beneath. Racemes terminal and lateral. Flowers yellow. Pods oblong, silky when young, glabrescent when mature. Seeds 30-40.

Abundant in wastelands and open places during rainy season.

Flowering : July - April
& Fruiting



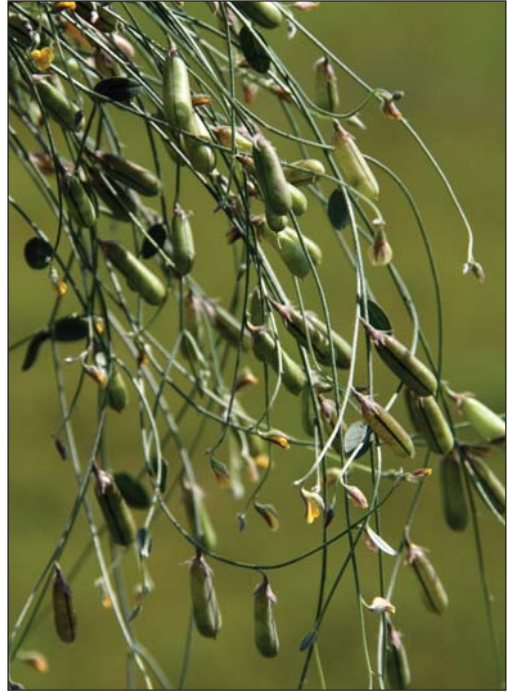
Crotalaria prostrata Rottl. ex Willd.

Vernacular name: Vashnukarni (O);
Chotojhungyn (Beng).

Herb with spreading slender branches, covered with yellowish silky hairs. Leaves simple, close, oblong or ovate-oblong, obtuse, yellowish silky on both surfaces, glaucous beneath. Racemes lateral or leaf-opposed, 2-4-flowered. Flowers yellow. Pods oblong, glabrous, shortly stipitate. Seeds 16-20.

Abundant in grassy open places throughout the area.

Flowering : September - April
& Fruiting



Crotalaria retusa Linn.

Vernacular name: Jhunka (O);
Biljhunjhun (Beng.)

Tall, branched under-shrub; branches striate. Leaves simple, oblanceolate-oblong, cuneate at base, silky when young. Flowers yellow, in terminal, 12-20 flowered racemes; corolla with faint purple lines on the standard. Pods turgid, oblong, glabrous, 15-20 seeded.

Occasional, in open scrub forests.

Flowering : October - March
& Fruiting



Crotalaria spectabilis Roth. (Syn: *Crotalaria sericea* Retz.)

Vernacular name: Jhunka (O); Jhum jhumo (Beng.); Jhunjhunia (H).

Tall herb, stems stout, hexagonal. Leaves simple, oblanceolate to obovate, subacute to obtuse, appressed hairy beneath. Racemes long, terminal, often paniced, Flowers yellow, bracts persistent spreading or reflexed, lanceolate or ovate, foliaceous, Pods oblong, glabrous, stalked; 20-30 seeded.

Occasional in waste grounds.

Flowering : September - February

Fruiting : December - May



Crotalaria verrucosa Linn.

Vernacular name: Jhunka, Balijhumuka (O); Blue Rattlepod (E).

Erect or prostrate herb. Stem 4-angled or alate, striate. Leaves simple, obovate or rhomboidal, cuneate at base, obtuse or emarginate at apex, with a auriculate stipule at base. Flowers blue or violet, in zigzag terminal or lateral racemes, 5-10 flowered; corolla with deep purple lines on the standard. Pods turgid, oblong, glabrous.

Fairly common in waste places and sandy soils.

Flowering : September - March
& Fruiting



Dalbergia lanceolaria Linn. f.

Vernacular Name: Sajjanapatri, Chakundia (O); Chakemdia (Beng.); Takoli, Bithua (H).

Medium-sized tree; bark whitish-grey, peeling off in irregular flakes; innovations yellow-silky. Leaves imparipinnate; leaflets 9-12, oblong-elliptic or obovate-oblong, emarginate at apex, pale beneath. Flowers pink or purple, in dense lateral or terminal fulvous-pubescent panicles. Pods compressed, indehiscent, 1-3 seeded, narrowed at both ends, often sinuate between the seeds..

Frequent in hilly forests and scrub jungles.

Flowering : April - May

Fruiting : September - January



Dalbergia paniculata Roxb.

Vernacular name: Barabakulia (O); Dhobin (H).

Medium-sized tree, bark whitish. Leaves imparipinnate; leaflets 7-15, alternate, orbicular or oval, emarginate, glaucous and reticulately veined beneath. Flowers pinkish-blue or bluish-white, in dense lateral panicles. Pods tapering at both ends, stipe slender; seeds 1-3, brown, ellipsoid.

Common in mixed forests and on sandstone hills.

Flowering : February - June

Fruiting : July - October



Dalbergia rubiginosa Roxb.

Vernacular name: Kanchanai (O).

Busht scandent shrub with rusty pubescent shoots. Leaves imparipinnate; leaflets 5-7, subsessile, elliptic or oblong, polished above, finely sericeous or partly glabrescent beneath. Flowers white or creamish-white, in short axillary simple or paniced racemes; bracts ovate, rusty tomentose. Pods oblong, very thin, veined.

Abundant in rocky places and thorny scrub jungles; often growing from rock crevices.

Flowering : March - May

Fruiting : April - June



Dalbergia sissoo Roxb.

Vernacular name: Sisu (O, Beng.); Shisam (H).

Medium-sized tree; bark pale grey, exfoliating in narrow longitudinal strips. Leaves imparipinnate, rachis zig-zag; leaflets 3-5, broadly elliptic-ovate, cuspidate. Flowers yellowish-white, subsessile, secund on the branches of densely pubescent axillary panicles. Ovary long-stipitate. Pods linear-oblong, compresses, 1-3 seeded.

Planted as an avenue plant and grown in gardens.

Flowering : March - June

Fruiting : November - January



Derris scandens (Roxb.) Benth.

Vernacular name: Kentia, Kamocha (O); Noalata (Beng.); Gonj (H); Hog Creeper (E).

Large climbing shrub; branchlets brown, lenticellate. Leaves imparipinnate; leaflets 7-13, oblong to ovate-oblong, coriaceous, shining and glabrous. Racemes slender, upto 30 cm long. Flowers white or pinkish-violet. Pods narrowly oblong, with a wing down the upper sutures, 1-4 seeded.

Very commonly found in rocky forests and sandstone hills.

Flowering : July - September

Fruiting : September - February.



Desmodium gangeticum (Linn.) DC.

Vernacular name: Salaparni, Salpheni, (O); Salpani (O, Beng.); Salpan, Salwan (H).

Diffuse herb or under-shrub; stems angled, appressed hairy. Leaves 1-foliolate, lanceolate, oblong or ovate oblong,, glabrescent or scabrous, grey silky or nearly glabrous and glaucous beneath. Flowers purple or white, in ascending, lax, elongate, axillary and terminal, racemes. Pod subfalcate, 6-8-jointed, deeply indented on the lower suture.

Quite common in hedges, scrub jungles, waste places and forest thickets

Flowering : May - January
& Fruiting



***Desmodium triflorum* (Linn.) DC.**

Vernacular name: Kuradhia Gachha, Katkana (O); Kudaliya (Beng., H).

Perennial prostrate herb, rooting at nodes, forming thick mat. Stems slender, with fine spreading hairs. Leaves small, 3-foliolate; leaflets obovate, truncate or emarginate, glabrous above. Flower purple, pink or bluish-white, minute. Pods curved, 3-5-jointed, on filiform pedicels, reticulate-veined.

This is the most common species in waste lands, grassy field, roadsides and lawns.

Flowering : Most part of the year.
& Fruiting



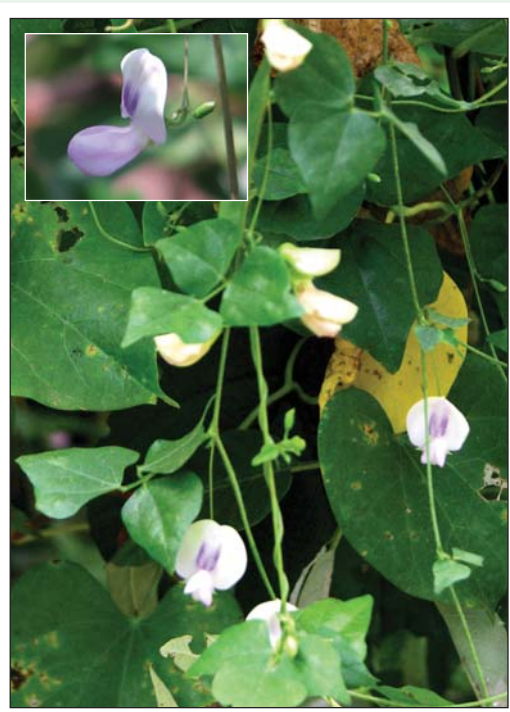
***Dolichos trilobus* Linn. (Syn: *Dolichos falcatus* Klein. ex Willd.)**

Vernacular name: Bana Kolatha (O).

Slender climber with fine spreading hairs. Leaves 3-foliolate; leaflets simple and 3-lobed, terminal ovate-rhomboid or deltoid, lateral ovate, sparsely appressed hairy on both sides. Flowers bluish-purple, in short, lax, few-flowered racemes or solitary. Pods flat, curved; seeds 5-8, reniform.

Abundant in hedges, thickets and scrub jungles.

Flowering : September - October
Fruiting : November - December



Dunbaria rotundifolia (Lour.) Merr.
(*Dunbaria conspersa* Benth.)

Twining herb. Leaflets rhomboid, terminal larger than the lateral, acute or subacute, minutely puberulous above, pale green, gland-dotted beneath. Flowers 1-2, rarely 3-4 together in the axils of the leaves. Corolla yellow. Pods linear-oblong, glabrous or 6-8-seeded.

Uncommon, growing on low bushes and hedges.

Flowering : September - November
& Fruiting



Erythrina suberosa Roxb.

Vernacular Name: Paldhua, Chaldua, Balthia (O); Mandar, (H).

Small prickly tree; bark corky, deeply cracked; prickles straw-coloured. Leaflets broadly ovate or rhomboid, rusty-tomentose, base usually rhomboid or sub-cuneate, secondary nerves 5-6. Flowers scarlet. Pods narrowly spindle-shaped; 2-3 seeds.

Occasional, in muddy soils close to bamboo forests and scrub jungles.

Flowering : March - May
Fruiting : April - June



Erythrina variegata Linn. (Syn: *Erythrina indica* Lam.)

Vernacular name: Paladhua (O); Pangra (H); Indian Coral Tree (E).

Large prickly tree; prickles small, black; young shoots tomentose. Leaflets rhomboid-ovate, glabrescent. Racemes very long, about 15 cm excluding 10-12 cm long peduncle. Flowers scarlet. Pods sub-cylindric, beaked, curved, torulose, 6-12 seeded; seeds dark purple.

Commonly planted in gardens, roadsides; occasionally wild in forests.

Flowering : March - May

Fruiting : April - July



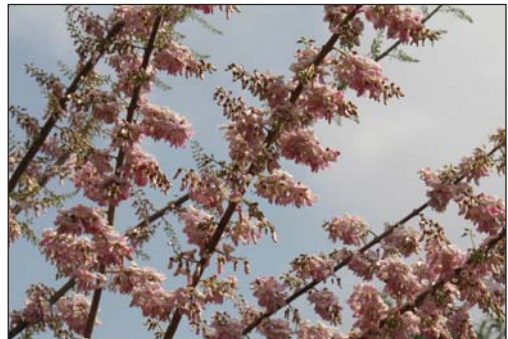
Gliricidia sepium (Jacq.) Kunth [Syn: *Gliricidia maculata* (Steud.) Kunth]

Moderate-sized tree; branchlets glandular-pubescent. Leaves imparipinnate; leaflets 6-8 pairs, lanceolate-elliptic, glabrous. Flowers pinkish-white, in small racemes. Pods oblong, up to 15 cm long, woody.

Planted in gardens, roadsides and forest areas.

Flowering : February - April

Fruiting : April - May



Indigofera astragalina DC. (Syn: *Indigofera hirsuta* auct. non Linn.)

Erect, greyish-white pubescent herb, up to 1 m tall; branches grooved. Leaves imparipinnate; leaflets opposite, 7-11, obovate or oblong, hairy on both surfaces. Racemes 8-10 cm long, many-flowered. Flowers deep pink. Pods sub-tetragonous, straight, strongly deflexed, white-hairy, 5-6 seeded.

Frequent and sub-gregarious on waste places and road sides.

Flowering : July - December
& Fruiting



Indigofera glabra Linn. (Syn: *Indigofera pentaphylla* Murr.)

Diffuse herb; stems hairy all over. Leaves membranous, imparipinnate; leaflets 3-7, opposite, obovate or elliptic, obtuse, hairy. Racemes short, axillary, laxly 2-4-flowered. Flowers pink or reddish, small. Pods slender, straight, turgid, beaked, glabrous. Seeds cylindrical, truncate at both ends.

Frequently found in sandy soils in exposed localities.

Flowering : August - November
& Fruiting



Indigofera linifolia (Linn.f.) Retz.

Vernacular name: Torki (H); Bhangra (Beng.).

Prostrate herb; stems slender, sub-quadrangular, grey-pubescent. Leaves subsessile, linear or linear-oblong, apiculate, strigulose both sides. Flowers red, small, in axillary bracteate racemes, bracts linear subulate, deciduous or persistent. Pods globose, 1-seeded, silvery-silky.

Quite common in wastelands and grass areas during post-monsoon period.

Flowering : August - January
& Fruiting



Indigofera linnaei Ali (Syn: *Indigofera enneaphylla* Linn.)

Vernacular name: Latahai (H).

Prostrate herbs, sometimes sub-woody at base. Leaves pinnate, subsessile, leaflets 5-7(-11), alternate, linear-oblong, the terminal largest, appressed hairy on both sides, silvery beneath. Flowers red, small, clustered, subsessile. Pods oblong, 3-4 mm, thinly silky, 2-seeded.

Fairly abundant in open grassy localities, wastelands and road sides.

Flowering : August - December
& Fruiting



Indigofera nummularifolia (Linn.)
Livera ex Alston (Syn: *Indigofera echinata* Willd.)

Diffuse herbs, branched from base; stem angular. Leaves simple, orbicular-ovate, mucronate. Flowers red, small, in very short axillary racemes. Pods reniform or semi-lunate, densely echinate on the two keels of the dorsal sutures.

Common in sandy soils in open grounds and grassy localities.

Flowering : August - December
& Fruiting



Mucuna pruriens (Linn.) DC. (Syn:
Mucuna prurita Hook.)

Vernacular name: Baidanka, Dhanka (O);
Alkusi (Beng.); Kinvach, Kaunch (H);
Common Cow itch, Cowhage (E).

Annual twiner. Branches densely clothed with hairs. Leaflets appressed hairy, obtuse or subacute, lateral ovate, terminal rhomboid-ovate. Flowers dark purple, in dense drooping racemes. Pods turgid, oblong, s-shaped, densely clothed with brown or grey intensely irritant bristles. Seeds black or mottled, shining.

Quite common in hedges, thickets, forests and also in scrub jungles after monsoon rains.

Flowering : September - November
Fruiting : December - March



Pongamia pinnata (Linn.) Pierre [Syn: *Pongamia glabra* Vent; *Derris indica* (Lam.) Bennet]

Vernacular name: Karanja (O); Karanj (K, H, Beng.); Pongam oil tree, Indian Beech (E).

Moderate to large-sized tree; bark smooth; grey. Leaflets 5-7, ovate or oblong, entire, acuminate or cuspidate, glabrous, glossy above. Flowers purplish-white or pinkish-white, in axillary racemes. Pods woody, with a short decurved point. Seed reddish-brown.

Mostly planted along roads, naturalized; also wild in certain areas.

Flowering : May - June

Fruiting : December - January



Pseudarthria viscida (Linn.) Wt. & Arn. [Syn: *Desmodium viscidum* (Linn.) DC.]

Vernacular name: Salaparni (O).

Diffuse undershrub; branches slender, angular, hairy. Leaves pinnately 3-foliolate; leaflets rhomboid or sub-orbicular, terminal much larger, pubescent, glaucous beneath. Racemes terminal, glandular-pubescent, sometimes paniced. Flowers red. Pods thin, compressed, 4-6 seeded, viscid-pubescent, breaking across from joints when dry.

Fairly common in shady localities in forests, thickets and under trees.

Flowering : October - January
& Fruiting



Pterocarpus marsupium Roxb.

Vernacular name: Bija, Piasal (O, H); Pitshal (Beng.); Indian Kino Tree (E).

Large deciduous tree; bark thick, with vertical cracks. Leaflets 5-7, oblong or elliptic, with rounded or obtuse ends, glaucous beneath, secondary nerves close and parallel. Flowers yellow, in large, terminal panicles. Pods suborbicular, surrounded with a curved, veined, membranous wing.

Very rare, in degraded forests; also introduced to the garden.

Flowering : April - June

Fruiting : August - October



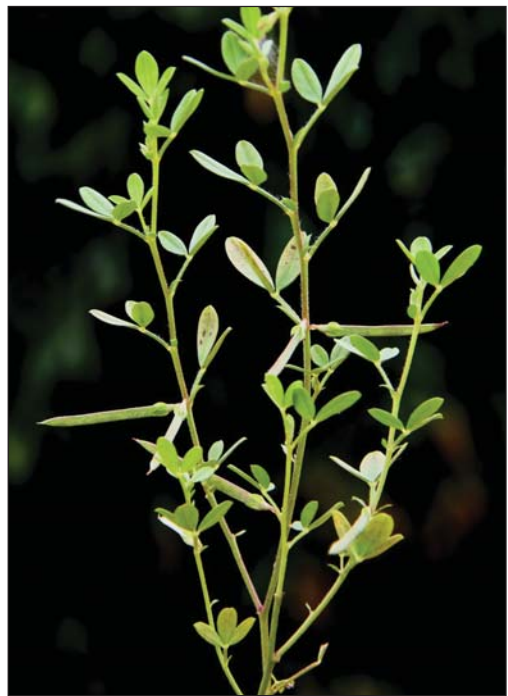
Rothia indica (Linn.) Druce

Vernacular name: Papra (O).

Branched annual herb, stem densely hairy. Leaves 3-foliolate; leaflets obovate, oblanceolate or rounded, mucronate, appressed hairy beneath. Flowers pinkish, axillary, solitary or 2-4 together. Pods narrow-linear, straight, pointed; seeds reniform.

Occasional, in sandy soils, waste places and exposed localities.

Flowering : October - January
& Fruiting



Sesbania bispinosa (Jacq.) W.F.Wight
(Syn: *Sesbania aculeata* (Willd.) Poir.

Vernacular name: Tentua (O).

Erect shrub. Branches and leaf-rachis with small weak prickles. Leaves 15-40 pairs, linear, obtuse, apiculate, glabrous. Racemes lax, erect or drooping. Flowers yellow with brown blotches, orbicular. Pods ascending, very slender, subterete, beaked, straight or sub-torulose.

Commonly found in wet grounds close to lake and swamps.

Flowering : August - October
& Fruiting



Sesbania javanica Mig. [Syn: *Sesbania paludosa* (Roxb.) Prain]

Vernacular name: Kathasola (Beng., O).

Erect annual with a stout swollen tap root. Stipules semi-lanceolate, caducous; leaflets, oblong, slightly tapering, apiculate, thinly hairy beneath. Flowers yellow, standard purple dotted; appendages triangular. Pods linear, pendulous, somewhat twisted, slightly torulose.

Gregarious in lakes, swamps and jheels.

Flowering : October - January
& Fruiting



Smithia conferta J.E. Sm.

Herb with many spreading branches. Leaves setose or bristly; leaflets 5-9 pairs, linear-oblong, tip rounded or acute. Flowers yellow, capitate in the axils of terminal leaves of short, lateral shoots, subsessile. Pods moniliform, 7-jointed; joints connected by the dorsal suture only.

Occasional, along the margins of lake and swampy habitats.

Flowering : September - October

Fruiting : November



Smithia sensitiva Ait.

Vernacular name: Mulla kashina (Beng.); Odabrini (H).

Much branched procumbent herb. Leaves sensitive; rachis bristly and ending in a bristle. Leaflets 2-6 pairs, linear, ciliate or bristle-ciliate on the midrib below. Racemes capitate, 1-6-flowered; peduncle slender, usually longer than the leaves. Flowers yellow; pedicels short, ascending. Pods 4-6-jointed, papillose or with small acute warts.

Common in wet places and lake banks; often forming pure communities.

Flowering : September - November
& Fruiting



Tephrosia maxima (Linn.) Pers.
[*Tephrosia purpurea* (Linn.) Pers. var.
maxima (Linn.) Baker]

Vernacular name: Kolathia (O).

Erect or ascending undershrub. Stem often zig-zag, appressed-pubescent. Leaflets 5-8 pairs, obcuneate or oblanceolate, truncate or retuse, apiculate, puberulous beneath. Racemes leaf-opposed, with distant nodes. Corolla bluish-pink or bright purple. Pods nearly straight, puberulous. Seeds elliptic-oblong or orbicular.

A characteristic species of open lateritic soils and also in rock crevices.

Flowering : September - December
& Fruiting



Tephrosia purpurea (Linn.) Pers.

Vernacular name: Bana Kolatha, Kolathia, Ban nilo, Soropokha (O); Ban Nil (Beng.); Sarponkha, Damasias (H); Wild Indigo (E).

Undershrub. branches angled or rounded, glabrous or sericeous. Leaflets 5-8 pairs, oblanceolate to obovate or oblong-cuneate, rounded, slightly retuse, mucronate, glabrous or appressed hairy. Racemes terminal, elongate, lax with 3 or more nodes. Flowers purple, red or pinkish-violet. Pods slightly curved, with short appressed hairs; seeds ovoid.

Gregarious along roads and waste grounds in post monsoon periods.

Flowering : Most part of the year.
& Fruiting



Tephrosia villosa (Linn.) Pers.
(*Tephrosia hirta* Buch.-Ham.)

Vernacular name: Banakolthia, Kolthia (O).

Diffuse undershrubs. Stems flexuose, somewhat hoary. Leaves nearly sessile; leaflets 6-8 pairs, narrowly oblanceolate, apex obtuse, subtruncate, sometimes emarginate, glabrous above, appressed hairy beneath. Flowers red or pink, in several pairs in lax elongate racemes. Pods falcately curved, densely villous. Seeds subquadrate.

Common in open waste lands and shrub jungles.

Flowering : September - February
& Fruiting



Teramnus labialis (Linn.f.) Spreng.

Vernacular name: Mashani (Beng.); Mashoni, Mashparui (H).

Slender twiner; stem glabrescent or adpressed-pubescent. Leaflets elliptic or ovate, mostly acute, glabrous above, thinly appressed hairy beneath. Racemes very slender, with distant clusters or solitary flowers. Flowers pink or white. Pods narrow linear, slightly curved, ending in a hook, thinly adpressed pubescent. Seeds black when dry.

Very common in scrub forests and thickets.

Flowering : September - March
& Fruiting



Vigna adenantha (G. F. W. Meyer)
Marechal *et al.* (Syn: *Phaseolus*
adenanthus G. F. W. Meyer)

Vernacular name: Pani Sima (O); Ban
Barbati (Beng.).

Twining or trailing perennial herbs with
tuberous root, glabrescent; stipules
lanceolate, basifixed. Leaves 3-foliolate;
leaflets ovate, entire, acute. Racemes
dense, 6-8-flowered, peduncle 5-15 cm
long. Flowers very large; violet in colour.
Pods linear, compressed, beaked,
glabrous. Seeds oblong, black.

Occasional, along the edges of water
body, sometimes floating and trailing on
water surface.

Flowering : September- October
Fruiting : November - January



Vigna sublobata (Roxb.) Bairiganjan,
Panda, Choudhury & Pattnaik
[*Phaseolus sublobatus* Roxb.; *Vigna*
radiata (Linn.) Wilczek var. *sublobata*
(Roxb.) Verdc.]

Vernacular name: Ban Biri, Purburi (O);
Ghora mung (Beng.).

Annual subscandent or twining herb,
clothed with ferruginous, deflexed hairs.
Leaflets ovate-deltoid, acuminate, ciliate.
Racemes capitate, on long peduncles, 2-
6-flowered. Flowers yellow. Pods
subcompressed, clothed with ferruginous
hairs. Seeds 4-10, brown.

Rare, in grassy forest floors.

Flowering : August - October
Fruiting : October - December



Vigna trilobata (Linn.) Verdc. (Syn: *Phaseolus trilobus sensu Ait.*)

Vernacular name: Sana Muga (O); Mungam (H); Mugami, Mungan (Beng.)

Trailing herb; stem glabrous, angular. Stipules oblong or ovate-oblong, peltate. Leaves 3-foliolate; leaflets very variable, shallowly 3-lobed, lobes rounded and subspathulate. Racemes capitate or spiciform, long peduncles. Flowers yellow. Pods linear, glabrous; seeds grey, 6-12.

Occasional in damp localities and field bunds.

Flowering : September - January
& Fruiting



Zornia gibbosa Span. [Syn: *Zornia diphylla auct. non* (Linn.) Pers.]

Vernacular name: Chena Kuradhia (O).

Prostrate herb. Branchlets pubescent. Leaves 2-foliolate; stipules peltate; leaflets lanceolate or ovate-lanceolate, sparsely pubescent, apex acute, base obtuse. Racemes 3-12-flowered; bracts geminate, peltate, ciliate on margin, punctate. Flowers yellow, sessile. Pods 1-6 jointed, reticulately venose, with retrorsely scabrid prickles.

Quite abundant in open wastelands and grassy places.

Flowering : August - December.
& Fruiting



CRASSULACEAE

Kalanchoe pinnata (Lam.) Pers.

Vernacular name : Amarapoi, Hemkakri (O); Koppata (Beng.); Zakhm-haiyal (H).

Glabrous, succulent herb. Leaves opposite, simple or 3-foliolate, oblong or elliptic, crenate or very coarsely crenate, obtuse. Flowers pale greenish and purple in lax paniced cymes. Corolla nearly included, sub-globose and constricted in the middle, tip reddish-purple.

Locally abundant in thickets, roadsides and scrub forests.

Flowering : January - February

Fruiting : March



HALORAGACEAE

Myriophyllum tetrandrum Roxb.
(Syn: *Myriophyllum indicum* auct. non Willd.)

Submerged aquatic herb; submerged leaves whorled, pinnatisect into fine capillary segments; aerial leaves simple, usually very short, narrow lanceolate, toothed. Flowers white. Fruit cruciform; mericarps ovate with convex back and flattened sides, irregularly and finely tuberculate to smooth.

Locally gregarious in stagnant waterbodies associated with *Trapa natans*, *Nymphoides hydrophylla* etc.

Flowering : July - September
& Fruiting



RHIZOPHORACEAE

Carallia brachiata (Lour.) Merr.

Vernacular name : Bhuasuni, Manj (O);
Kierpa (Beng., H).

Small evergreen tree, twigs somewhat 4-angled. Leaves oblong, elliptic-obovate or ovate, entire or serrulate, margins often revolute shortly acute or acuminate, shining leathery. Flowers small, greenish. Petals white, orbicular or orbicular cordate, entire or bilobed, margin crenately waved or lacerate. Fruit reddish, globose.

Occasional in forests and near water courses.

Flowering : December - April
Fruiting : August - November



COMBRETACEAE

Anogeissus acuminata (Roxb. ex DC.) Guill. & Perr.

Vernacular name : Phasi, Phansi (O);
Chakwa (Beng.).

Large tree; branches drooping, bark black. Leaves elliptic or elliptic oblong, acute or rounded and apiculate at apex, densely sericeous when young, more or less glabrescent with age. Peduncles mostly solitary from the leafscars. Flowers greenish-white, in dense globose heads. Fruits 2-winged, beaked, 1-seeded.

Frequent along streams and waterbodies;
often planted in gardens and roadsides.

Flowering : March - April
Fruiting : April - May



***Calycopteris floribunda* Lam.**

Vernacular name: Dhala Atundi (O)

Sarmentose or climbing shrub. Branchlets rusty-tomentose. Leaves ovate, elliptic or elliptic-oblong, densely tomentose below when young, pubescent. Flowers greenish, villous, in dense bracteate spikes; flowers sessile or shortly pedicelled. Sepals accrescent. Fruit oblong or ellipsoid, villous, indehiscent, 5-ribbed.

Frequent in scrub forests and thorny secondary forests.

Flowering : March - April

Fruiting : May



***Combretum albidum* G.Don (Syn: *Combretum ovalifolium* Roxb.)**

Vernacular name : Atudi, Devakukundia (O).

Climbing shrub. Leaves elliptic or ovate, obtuse, rounded or shortly obtusely acuminate or cuspidate, densely covered with minute discs on both sides. Flowers sessile, 4-merous, white. Disc densely hairy. Fruit yellowish brown, 4-winged, globose, or subglobose, under 2 cm across.

Occasional, in moist forest fringes and thickets.

Flowering : February - March

Fruiting : April - May



Combretum roxburghii Spreng. (Syn: *Combretum decandrum* Roxb.)

Vernacular name: Atundi, Kala Atundi, Korakokundia (O).

Large sarmentose or scandent rusty-pubescent shrub; young branches black. Leaves oblong or obovate-oblong, coriaceous, glabrous. Spikes rusty villous, in large axillary and terminal panicles with conspicuous large white bracts. Flowers fragrant. Petals creamish-white. Fruits oblong or elliptic, 5-winged.

Fairly abundant and gregarious in scrub forests, thorn jungles and hedges through out the area.

Flowering : November - February

Fruiting : March - June



Quisqualis indica Linn.

Vernacular name: Madhumalati (O); Rangoon creeper (E).

Large climbing shrub; young parts brown-tomentose. Leaves elliptic-oblong or ovate-oblong. Flowers showy, pink-white or reddish-white, scented, in axillary or terminal bracteate spikes. Hypanthium 6-8 cm long, pubescent.

Commonly cultivated in gardens and homesteads; occasionally run wild.

Flowering : Through out the year.

& Fruiting



Terminalia arjuna (Roxb. ex. DC.)
Wt. & Arn.

Vernacular name: Arjuna (O); Arjun (H).

Large tree; bark grey or pale green, smooth, peeling-off. Leaves opposite or subopposite, sub-sessile, oblong or elliptic-oblong, entire or crenate, with two glands near the base of the lamina beneath or on the petiole. Flowers white, in shortly paniced spikes. Fruit 5-winged; wings fibrous-woody.

Common along lakes and water bodies; also planted along roads.

Flowering : May - July

Fruiting : October - February



Terminalia bellirica (Gaertn.) Roxb.

Vernacular name: Bahada (O), Babera (H); Bohera (Beng.); Belleric Myrobalan (E).

Tree; bark dark grey. Leaves clustered towards the ends of the branchlets, alternate, broadly elliptic or obovate, obtusely-cuspidate, cuneate at base, puberulous when young. Flowers greenish-white or greenish-yellow, in solitary axillary or extra axillary spikes. Drupes subglobose or pyriform, grey-tomentose.

Sparsely distributed through out the area in dry forests; often grown in gardens.

Flowering : March - May

Fruiting : October - December



Terminalia chebula Retz.

Vernacular name: Harida, Haridra (O); Hara-taki (Beng.); Chebulic Myrobalan (E).

Medium-sized trees; bark grey or brown. Leaves sub-opposite, ovate or elliptic, silky-hairy when young, glabrous when mature; petioles with 2 glands near the top. Flowers whitish, densely villous within, in small terminal panicles. Drupes ellipsoid, often 5-ribbed.

Occasional in mixed forests; frequently planted in gardens.

Flowering : March - April

Fruiting : November - December



MYRTACEAE

Callistemon citrinus (Curtis) Stapf
(Syn: *Callistemon lanceolatus* DC.)

Vernacular name: Bottle Brush (E).

Small evergreen tree. Leaves linear-lanceolate, sharply pointed, gland-dotted, hoary-tomentose, mid vein and lateral nerves prominent. Flowers crimson, in terminal, drooping spikes. Calyx-tube campanulate; stamens bright red or crimson. Capsules woody, ovoid.

Commonly planted in gardens, self-sown on the banks of waterbodies by dispersal of seeds on water surface.

Flowering : Most part of the year.
& Fruiting



Eucalyptus citriodora Hook.

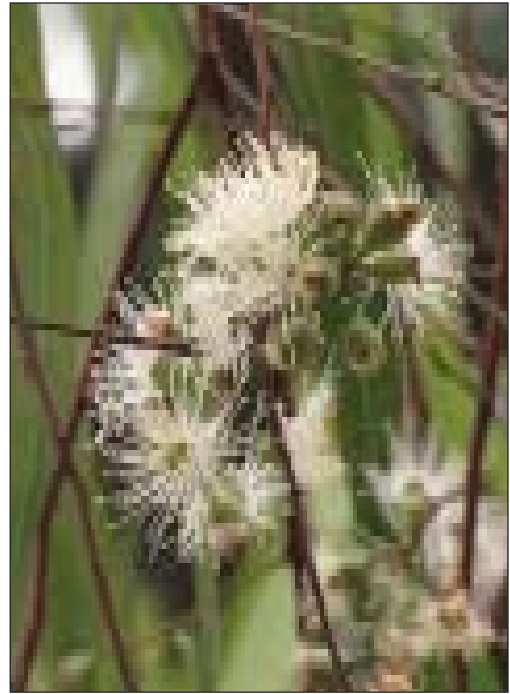
Vernacular name: Bhujapatra (O).

Tall tree; bark smooth, grey, decorticating in small plates. Leaves petiolate, lanceolate, often falcate, strongly lemon-scented. Flowers creamish-white, in 3-5-flowered umbels, arranged in panicles. Operculum hemispheric, more or less apiculate. Fruits ovoid-urceolate.

Planted in forests, plantations and gardens.

Flowering : May - June

Fruiting : September - February



Eugenia rothii Panigr. [Syn: *Eugenia bracteata* (Willd.) Raeusch. ex DC.]

Vernacular name: Sagadabatua, Sagadabatua Koli (O).

Shrub, branches brown; innovation fulvous-pubescent. Leaves lanceolate, elliptic or rhomboid, obtuse, subacute or acuminate, base cuneate. Flowers white, axillary or extra-axillary, solitary or in few-flowered fascicles. Berry red or ultimately black, globose, crowned by the calyx-lobes, aromatic, edible.

Fairly common in scrub jungles and hedges.

Flowering : March - June

Fruiting : July - November



Psidium guajava Linn.

Vernacular name : Pijuli, Peda (O), Guava (E).

Small tree; bark smooth, exfoliating in small flakes. Leaves opposite, oblong or elliptic oblong, entire, glabrous above, pubescent beneath, Flowers white, on 1-3-flowered, axillary peduncles. Berry globose or pyriform, varying in size and shape, many-seeded; seeds embedded in pleasantly flavoured sweet pulp.

Grown in gardens; also run wild as an escape.

Flowering : Most part of the year.
& Fruiting



Syzygium cumini (L.) Skeels [Syn: *Eugenia jambolana* Lam.; *Syzygium jambolanum* (Lam.) DC.]

Vernacular name: Jamu (O); Kalajam (Beng.); Jaman (H); Black Plum (E).

Large glabrous tree; bark grey-brown. Leaves oblong or elliptic-oblong, mostly, acute or acuminate, shining, secondary nerves numerous. Flowers white or whitish-yellow, sessile, mostly in 3-chotomous panicles. Berry ellipsoid or oblong and shape, black, shining and juicy when fully ripe.

Planted as avenue tree and in gardens; wild along streams in forests.

Flowering : April - May
Fruiting : July - August



Syzygium jambos (Linn.) Alston
(Syn: *Eugenia jambos* Linn.)

Vernacular name: Jamurol (O); Gulab Jamu (O, H); Rose Apple (E).

Tree; bark grey to black. Leaves oblong-lanceolate to lanceolate, acuminate, glabrous. Flowers white, 4-6 cm in diameter, in few-flowered terminal raceme-like cymes; calyx turbinate; petals 4, free, orbicular; filaments 2-3 cm long. Berries yellowish-white when ripe, crowned by inflexed calyx-lobes, rose-scented, sweet; seeds 1-2.

Planted in gardens for its edible fruits.

Flowering : March - April

Fruiting : August - September



BARRINGTONIACEAE

Barringtonia acutangula (Linn.)
Gaertn.

Vernacular name : Hinjal, Hijal (Beng, O);
Hyal or Hyar (H).

Small or medium-sized tree; bark thick, dark grey, furrowed on old trees. Leaves obovate or oblanceolate, crenulate, rounded or subacute at apex, glabrous, base narrowed. Flowers red, fragrant, in long, drooping racemes; hypanthium acutely 4-angled, obpyramidal; stamens bright red. Fruit oblong, quadrangular, truncate.

Quite common in the banks of lakes, ponds and ditches.

Flowering : April - June

Fruiting : September



Careya arborea Roxb.

Vernacular name : Kumbhi (O); Kumbi (H, Beng.)

Medium-sized tree. Leaves obovate or obovate-oblong, crenate-serrate, obtuse, rounded or shortly acuminate, glabrous, base narrowed; petiole short, margined. Flowers white and pink, large, fleshy, sessile or subsessile; petals elliptic-oblong; filaments pink. Berry globose, fleshy, crowned with the calyx-tube.

Occasional in dry forests; also planted in gardens.

Flowering : April - May

Fruiting : July - August



LECYTHIDACEAE

Couroupita guianensis Aubl.

Vernacular name : Nagalinga, Nagakesar (O); Cannon-ball tree (E).

Tree. Leaves crowded at the ends of branches, obovate-oblong, acute, obtuse or shortly acuminate, glabrous. Flowers in thick racemiform inflorescences borne on main trunk and branches. Flowers fragrant, petals obovate, thick, fleshy, broadly rounded, pinkish. Fruit globose, large, 15-20 cm dia, with hard pericarp, woody.

Planted in gardens, road sides and temple premises.

Flowering : January - May

Fruiting : June - July



MELASTOMATACEAE

Melastoma malabathricum Linn.

Vernacular name: Gangei, Karati (O), Phurki (H).

Bushy, branched shrub; twigs densely strigose, with flat paleaceous hairs, 4-angled. Leaves broadly lanceolate or elliptic, 3-7-nerved at base, strigose with stout scabrid hairs on both sides. Flowers very large, bright mauve-purple, in clusters of 1-5 at the ends of the twigs; anthers yellow. Fruits broadly ovoid, truncate, hypanthium becoming brittle and breaking transversely and exposing 5 large, purplish-black pulpy placenta.

Abundant near water courses, along streams; commonly cultivated as a garden ornamental because of its beautiful showy pink flowers.

Flowering : February - May

Fruiting : November - December

Memecylon umbellatum Burm f. (Syn: *Memecylon edule* Roxb.)

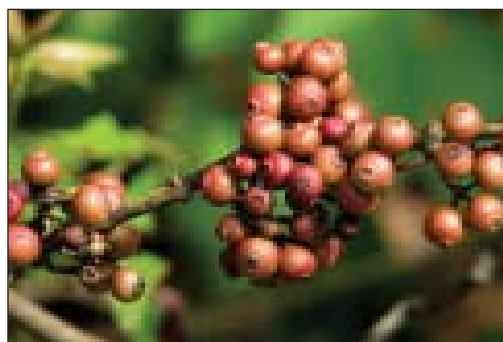
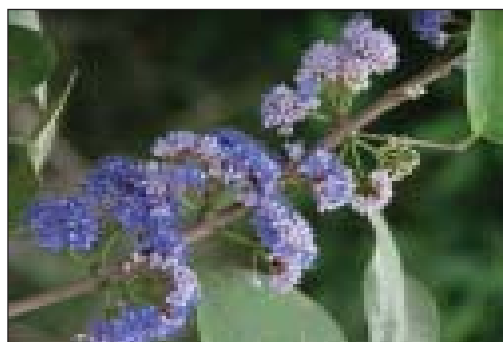
Vernacular name : Nirasa, Niraisa koli, Dalsundara (O); Iron wood tree (E).

Small trees. Leaves ovate, acuminate, often with minute black dots beneath, secondary nerves 6-9, obscure, base rounded or obtuse. Flowers bright blue, numerous in clustered compound umbellate cymes, from trunks or axils of old or fallen leaves. Berry blue or dark-purple, edible.

Locally abundant on sandstone hills and thorny scrub jungles.

Flowering : March - June

Fruiting : August - September



LYTHRACEAE

Ammannia baccifera Linn.

Vernacular name: Ramdani (O).

Erect, glabrous herb, stem 4-angular. Leaves opposite below, often alternate above, narrowly linear-oblong, oblong-lanceolate or elliptic-lanceolate. Flowers minute, subsessile, in few-flowered or dense axillary cymes, turning red in fruit. Capsule depressed globose, exceeding the calyx, red.

Gregarious in damp places, wastelands and margins of lake.

Flowering : September - November

Fruiting : November - March



Ammannia multiflora Roxb.

Erect herb, branches sharply 4-angled. Leaves linear or linear-oblong, apex subacute or obtuse. Flowers in compound peduncled cymes; calyx tube campanulate or tubular-campanulate; petals 4, minute, red. Capsule globose, often reddish.

Fairly common along swamps, ditches and in low-lying areas.

Flowering : September - November

Fruiting : November - December



Lagerstroemia indica Linn.

Vernacular name: Chhenaphula (O); Pharash (H, Beng.); Common Crape Myrtle (E).

Large shrubs or small trees. Leaves subsessile, elliptic or oblong, subobtuse, glabrous. Flowers white, pink or purple, in several panicles; petals long-clawed. Fruit sub-globose.

Commonly planted in gardens for its beautiful flowers.

Flowering : May - July

Fruiting : July - October



Lagerstroemia parviflora Roxb.

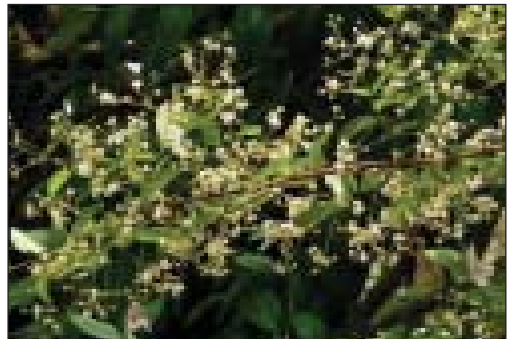
Vernacular name : Sidha (O); Seina (H).

Trees; bark grey, pilling off in long narrow flakes. Leaves narrowly elliptic or oblong or ovate-lanceolate, acute or acuminate, glabrous above, more or less pubescent, coriaceous. Flowers white, in lax, axillary and terminal downy panicles of 2-5-flowered cymes. Capsule ellipsoid, polished, 3-4-valved.

Occasional in dry forests; rarely grown in gardens.

Flowering : April - May

Fruiting : October - December



Lagerstroemia reginae Roxb. [Syn: *Lagerstroemia flosreginae* Retz.; *Lagerstroemia speciosa* (Linn.) Pers.]

Vernacular name : Patali (O); Jarul (H); Queen Crape Myrtle (E).

Much branched tree. Leaves elliptic, oblong-elliptic or oblong-lanceolate, acuminate, glabrous on both sides. Flowers purple, in long terminal panicles, ultimate branches cymosely 1-3-flowered; calyx tube turbinate, ribbed; petals long-clawed, crumpled and wavy. Capsule subglobose, woody, 5-6 valved, seated on the persistent calyx-tube.

Common avenue tree along roads and also planted in gardens.

Flowering : April - August

Fruiting : September - December



Lawsonia inermis Linn.

Vernacular name: Manjuati (O); Mehndi (Beng., H); Henna (E).

Much branched shrub or small tree. Leaves elliptic or broadly lanceolate, apex often mucronulate, base tapering. Flowers white or cream-coloured, fragrant, in dense spikes. Capsule red when young, ultimately dry and seated on the calyx-tube, depressed globose.

Grown as a hedge plant and also in gardens for its medicinal properties.

Flowering : August - October

Fruiting : November - December



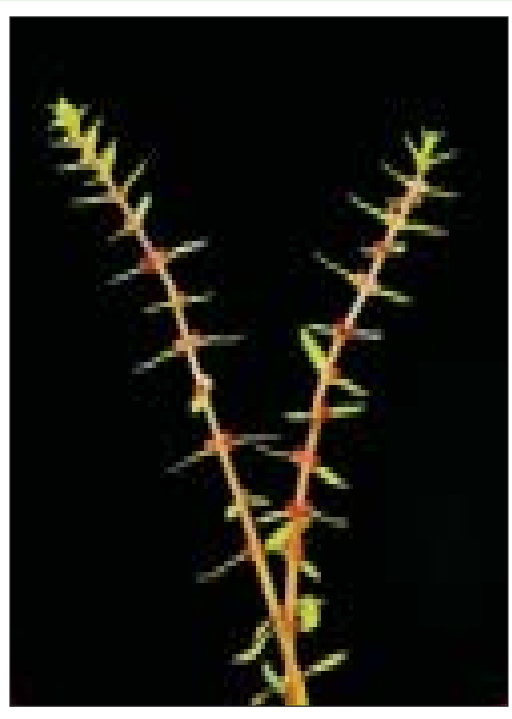
Rotala indica (Willd.) Koehne (Syn: *Ammannia pentandra* Roxb.)

Vernacular name: Badbadi (O).

Annual herb; stem erect or decumbent, rooting at the nodes. Leaves decussate, sessile or subsessile, suborbicular or narrowly oblong, acute or obtuse. Flowers sessile or subsessile, solitary in axils of bracts; petals 4, persistent, pinkish, linear to narrowly ovate. Capsule ellipsoidal or oblong, 2-valved.

Very common in wet places and drying up ditches and rice fields.

Flowering : October - December
& Fruiting



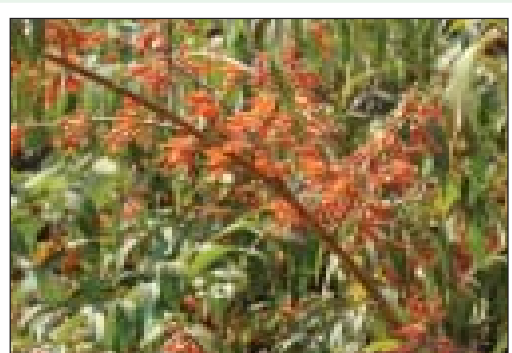
Woodfordia fruticosa (Linn.) Kurz (Syn: *Woodfordia floribunda* Salisb.)

Vernacular name: Dhataki (O); Dhatuki (H), Fire-flame Bush (E).

Large spreading shrub; bark reddish brown, peeling off in thin strips. Leaves sessile or subsessile, lanceolate, ovate-lanceolate or linear-lanceolate, acuminate, finely pubescent and dotted beneath. Flowers scarlet, in fascicled cymes, axillary and from the old wood. Capsule ellipsoid, included with in the calyx tube.

Occasional, in hill forests and scrub jungles.

Flowering : November - April
Fruiting : April - May



PUNICACEAE

Punica granatum Linn.

Vernacular name: Dalimba (O); Dalim (O, Beng.); Anar (H); Pomegranate (E).

Small tree or shrub. Leaves oblong or obovate, obtuse. Flowers large, 1-5-nate, terminating the shoots; hypanthium thick, fleshy; sepals 5-7, persistent; petals 5-7, red or orange, inserted between the sepals; stamens numerous. Berry globose, many-seeded; seeds covered with pink juicy pulp.

Cultivated in gardens; also self-sown.

Flowering : April- May,
also in other seasons.

Fruiting : July - September.



ONAGRACEAE

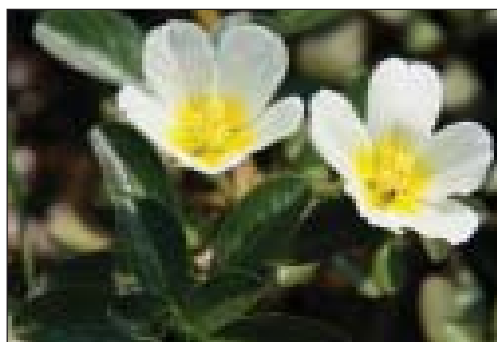
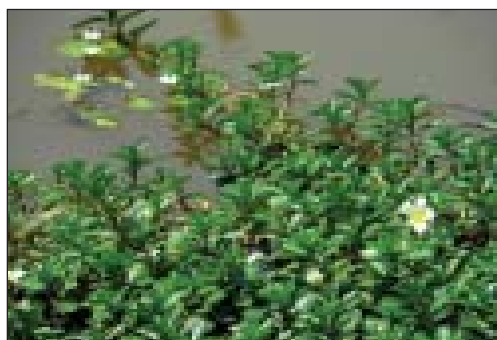
Ludwigia adscendens (Linn.) Hara (Syn: *Jussiaea repens* Linn.)

Vernacular name: Jagal (O).

Prostrate or ascending, glabrous herbs, rooting at the nodes, with white, spindle-shaped aerophores at the nodes of floating stems. Leaves oblanceolate or obovate, acute or obtuse; petiole long. Flowers white, yellowish at the base. Capsule cylindrical, glabrous or hairy, thick-walled.

Fairly abundant in lakes, ponds and ditches and rice fields.

Flowering : December - July
& Fruiting



Ludwigia octovalvis (Jacq.) Raven
(Syn: *Jussiaea suffruticosa* Linn.)

Erect, branched shrub, up to 6 ft. high, usually hairy and with decurrent raised lines. Leaves linear oblanceolate, rarely ovate lanceolate, acute, pubescent or hairy, base cuneate. Flowers solitary, from upper leaf axils, yellow. Capsule terete, tapering at base, pubescent.

Abundant in lakes, ditches, pools and other stagnant water bodies.

Flowering : October - April
& Fruiting



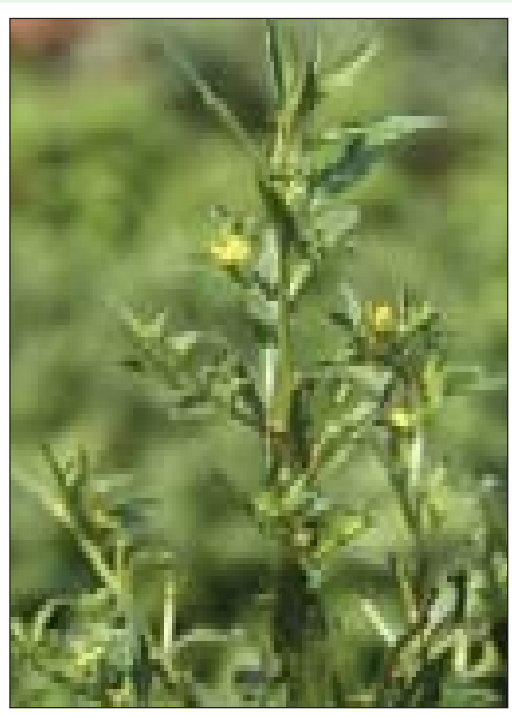
Ludwigia perennis Linn. (Syn:
Ludwigia parviflora Roxb.)

Vernacular name: Bila labanga, Latkera
(O)

Annual herb, usually erect, glabrous. Leaves lanceolate or linear-lanceolate subacute, tapering at the base into a short petiole. Flowers yellow, 4-merous, very shortly pedicelled, solitary axillary. Capsule oblong, inflated; seeds pluriseriate in each cell.

Quite common in wet places, moist and shady localities and near water bodies.

Flowering : October - November
Fruiting : November - January



Ludwigia prostrata Roxb.

Vernacular name: Bila labanga (O)

Annual erect, diffuse or ascending herb. Leaves lanceolate or elliptic-lanceolate, acute to acuminate, glabrous, cuneate at base. Flowers axillary, yellow. Capsule slender, linear, glabrous, obscurely 4-angled; seeds 1-seriate in each cell, pink, ovoid, minute.

Common on bunds of rice fields, wet grounds and in ditches.

Flowering : October - March
& Fruiting



TRAPACEAE

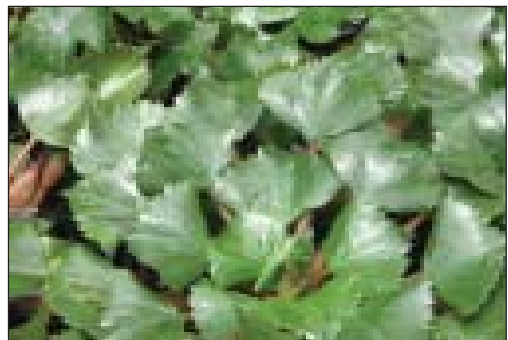
Trapa natans Linn. var. *bispinosa* (Roxb.) Makino (Syn: *Trapa bispinosa* Roxb.)

Vernacular name: Pani Singada (O); Singhara, Paniphal (H, Beng.); Water chestnut (E).

Free-floating aquatic herb. Floating leaves rhomboid, denticulate, serrate or incised with entire base, apex acute, red and densely villous beneath. Flowers white. Fruit obovoid, angular and broad with a short conical, often spinous beak with two spines at two angles, kernels edible.

A common free-floating aquatic plant in lakes, tanks and ditches.

Flowering : August
Fruiting : November - December



TURNERACEAE

Turnera ulmifolia Linn.

Vernacular name: Basanti (O).

Perennial herbs; stem densely appressed pubescent. Leaves at the top of the branches, lanceolate or ovate-lanceolate, coarsely dentate-serrate, hairy on both sides. Flowers in higher leaf axils, yellow; calyx tube funnel-shaped; petals obovate, apex truncate. Capsule ovoid, 3-valved.

Cultivates as a garden ornamental; also wild on roadsides and waste places as an escape.

Flowering : Most part of the year.
& Fruiting



PASSIFLORACEAE

Passiflora foetida Linn.

Vernacular name : Gandhatamala (O);
Passion Flower (E).

Slender, foetid-smelling, glandular-pubescent climber. Leaves palmately 3-lobed; margins ciliate with setaceous hairs, appressed hair. Flowers greenish-white, mostly solitary axillary, with an epicalyx of pinnatifid bracteoles; corona processes filiform, white and purple. Fruit globose, orange when ripe.

Very common in scrub jungles, hedges and thickets.

Flowering : November - June
& Fruiting



CUCURBITACEAE

Coccinia grandis (Linn.) Voigt [Syn: *Coccinia indica* Wt. & Arn.; *Cephalandra indica* (Wt. & Arn.) Naud.]

Vernacular name : Kainchikakudi, Bano Kundri (O); Kundru (H); Ivy gourd (E).

Climbing herb; stem angular, scabrous; roots tuberous. Leaves ovate or orbicular, entire, 3-5-lobed, glabrous, punctate above. Tendril simple. Male flowers solitary or 2-4 clustered; corolla campanulate, white. Female flowers with spreading stigma. Fruit oblong, narrowed apically or at both ends, red when ripe, edible.

Fairly common in hedges, bushes and scrub forests.

Flowering : Most part of the year.
& Fruiting



Cucumis trigonus Roxb.

Vernacular name: Bana Kakudi (O); Jangli Indrayan (H).

Perennial procumbent and trailing herb. Stem scabrous with short rigid hairs. Leaves suborbicular, deeply palmately 3-5(7)-lobed, lobes rounded, dentate or lobulate, scabrous on both sides. Flowers yellow. Fruit ellipsoid, rarely ovoid-globose, striped green and white, smooth, finally yellowish.

Occasional in waste places.

Flowering : August - October
& Fruiting



Diplocyclos palmatus (Linn.) Jeffrey
[Syn: *Bryonopsis lacinosa* auct. non
(Linn.) Naud.]

Vernacular name: Shivlingi (O, H).

Climbing herb. Leaves orbicular ovate, deeply 2-7-lobed or partite, slightly scabrid above, margin minutely denticulate; tendrils 2-fid. Flowers small, yellowish, males and females clustered in the same axils. Fruit globose, smooth, green or when quite ripe red, with white stripes. Seeds pyriform, grey, embedded in blue-green pulp.

Frequent in hedges and thickets.

Flowering : Chiefly October - January
& Fruiting



Luffa aegyptiaca Mill. [Syn: *Luffa*
cylindrica auct. non (Linn.) Roem.]

Vernacular name: Pitatarada (O); Ghia
Taroi (H); Dhundul (Beng.); Sponge
Gourd (E).

Climber. Stem glabrous, sometimes
angled. Leaves orbicular to hastate-
acuminate, 5-7-lobed; denticulate,
scabrous on both sides. Tendril trifid.
Flowers yellow, male and females often
in the same axils. Fruit cylindrical, but often
with 10 darker coloured stripes, 15-25 cm
long. Seeds grey or black.

Gregarious in scrub jungles, hedges and
wasts places during rainy season.

Flowering : August - November
& Fruiting



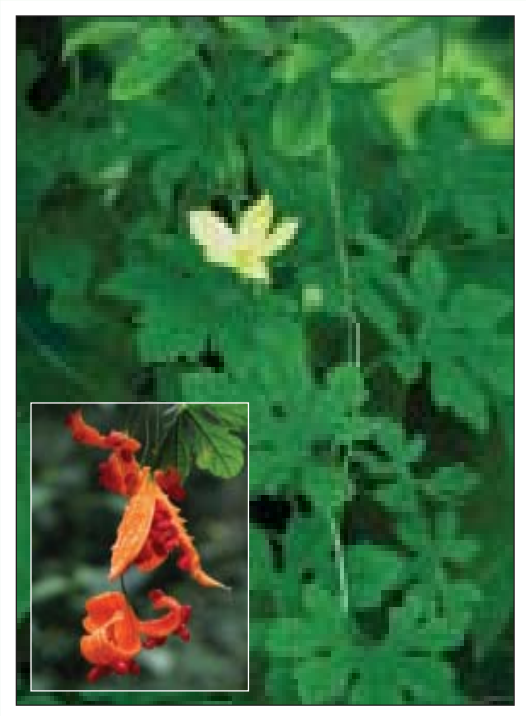
Momordica charantia Linn.

Vernacular name : Kalara (O), Karela (Beng., H); Bitter gourd (E).

Slender climber. Leaves pedately 5-7-fid or-sect, the segments again lobulate or sinuate and denticulate. Flowers yellow, monoecious or dioecious; males on filiform bracteate peduncles. Fruit ovoid or fusiform, tapering at both ends, tubercled, yellow when ripe; seeds compressed, ovate.

Wild in hedges and bushes; also cultivated for vegetables.

Flowering : June - January
& Fruiting



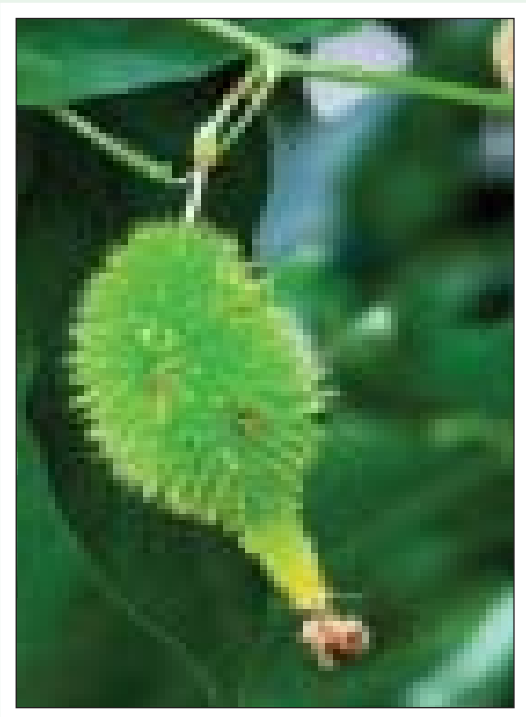
Momordica dioica Roxb. ex Willd.

Vernacular name : Kankad (O); Bankarela (Beng); Kakra (H).

Slender climber. Stem angular; root tuberous. Leaves simple or 3-lobed, ovate, deeply cordate, often sinuately denticulate. Flowers solitary axillary, yellow, dioecious; peduncles of male flowers with persistent spathaceous bracts wrapping round the buds. Fruit ellipsoid or ovoid, covered with soft fleshy spines; seeds ellipsoid, compressed.

Frequently observed in thickets and hedges as wild; also cultivated as vegetable.

Flowering : August - September
Fruiting : September - November



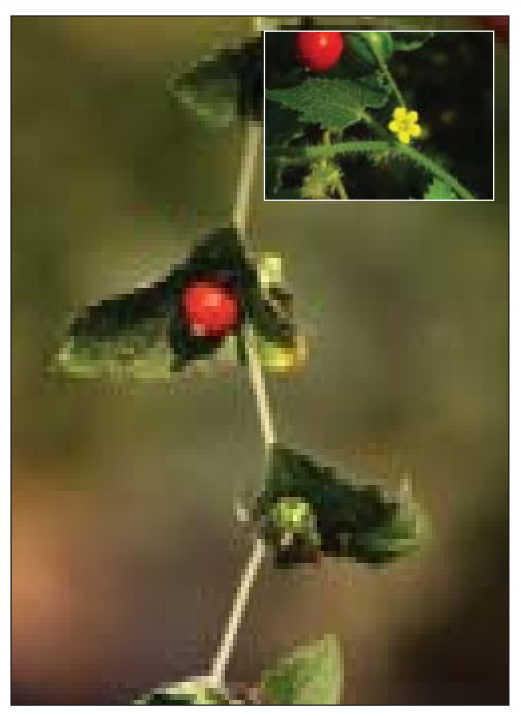
Mukia maderaspatana (Linn.) Roem.
[Syn: *Melothria maderaspatana* (Linn.)
Cogn.]

Vernacular name : Bilari (H).

Scarabrous climbing herb. Leaves ovate or deltoid, angular or 3-5-lobed, acute, margin minutely denticulate, upper surface scabrous. Flowers yellow. Fruit scarlet, globose,. Seeds grey, ovoid-oblong.

Common among bushes and hedges.

Flowering : September - December
& Fruiting



Solena amplexicaulis (Lam.) Gandhi
[Syn: *Melothria heterophylla* (Lour.)
Cogn.]

Vernacular name : Ban Kundri, Ban Kundari (O, Beng., H).

Prostrate or climbing herb. Stem angled, smooth; root tuberous. Leaves polymorphic, ovate, 3-5-angled or lobed, cordate, hastate or sagitate at base, denticulate, usually 5-nerved and pale beneath, tendril simple. Corolla campanulate, white. Fruit ellipsoid, scarlet with red pulp.

Quite common in hedges, bushes and scrub forests.

Flowering : April - August
Fruiting : November - December



Trichosanthes tricuspidata Lour.
[Syn: *Trichosanthes palmata* Roxb.;
Trichosanthes bracteata (Lam.) Voigt]

Vernacular name: Mahakalaphal (O);
Kakal (Beng.); Lal Indrayan, Mahakal
(H).

Large climber, branches long pendant.
Leaves ovate, simple or palmately 3-5
lobed, upper surface very scabrid, lower
surface paler. Flowers white, dioecious.
Fruit bright scarlet, globose, on axillary
stout peduncles. Seed embedded in dark
green pulp, flattened.

Common climber on large trees and
bushes in forests.

Flowering : August - September

Fruiting : November - December



CACTACEAE

Opuntia stricta (Haw.) Haw. var.
dillenii (Ker-Gawl.) Benson [Syn:
Opuntia dillenii (Ker-Gaw.) Haw.]

Vernacular name: Nagapheni (O, H);
Nagphana (Beng.); Prickly Pear (E).

Large fleshy shrub, jointed, with flat
limbs. Limbs with numerous areoles;
areoles with 5-6 long yellow spines and
numerous bristles. Flowers pale yellow
or greenish-yellow, tinged red within.
Hypanthium narrowly turbinate. Fruit
baccate, large, obovoid, scarlet or red,
seeds embedded in white pulp..

Very common in dry wastelands, sandy
soils and thorny scrub jungles.

Flowering : Most part of the year.
& Fruiting



MOLLUGINACEAE

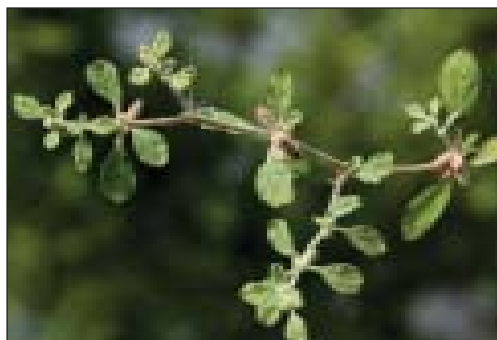
Glinus lotoides Linn. [Syn: *Mollugo lotoides* (Linn.) Kuntze]

Vernacular name: Ghoda Pitasaga (O); Duserasag, (Beng.); Gandibudi, Gandibuti (H).

Densely stellate-hairy, procumbent herb. Leaves whorled or pseudo-whorled, orbicular or obovate. Flowers green; sepals oblong-lanceolate or inner boat-shaped, enlarging in fruit, free, persistent, acute, mucronate, stellate-hairy, margin scariosus. Capsule oblong-ovoid, 5-valved. Seeds many, brown.

Occasional in borders of lakes and ponds and dried up rice fields.

Flowering : February - May.
& Fruiting



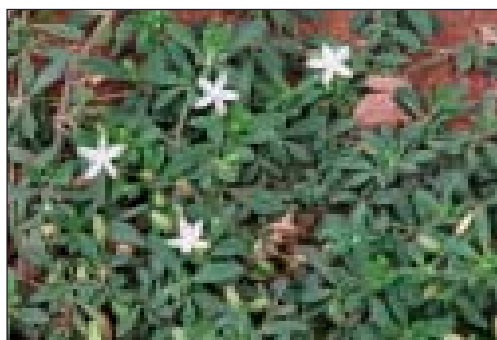
Glinus oppositifolius (Linn.) A. DC. (Syn: *Mollugo spargula* Linn.)

Vernacular name : Pitasaga, Pitagama (O); Jima (H, Beng.).

Small diffuse or prostrate herb, glabrous. Leaves in pseudo-whorls, rarely opposite, sessile, lanceolate, elliptic or obovate, unequal. Flowers white or greenish-white, axillary, long-pedicelled; sepals with scariosus margins. Capsule ellipsoid, shorter than the sepals, seeds many.

Gregarious in sandy soils and banks of lakes; also abundant in rice fields after crop harvest.

Flowering : March - October
& Fruiting



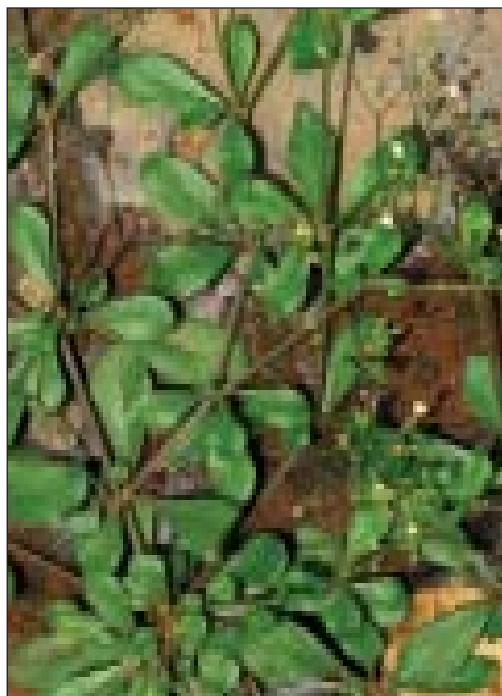
Mollugo pentaphylla Linn. (Syn: *Mollugo stricta* Linn.)

Vernacular name : Pita gohun, Pitasaga (O), Jul papara (Beng.).

Erect, annual, glabrous herb, stem grooved or angled. Radical leaves rosulate, oblanceolate-spathulate; cauline leaves opposite or 3-5 in a whorl or pseudo-whorl, subsessile or shortly petioled. Flowers minute, white or greenish-white, in terminal or leaf opposed peduncled lax cymes. Capsule oblong, 3-valved.

Common weed in waste places and roadsides.

Flowering : All the year round.
& Fruiting



AIZOACEAE

Trianthema portulacastrum Linn. (Syn: *Trianthema monogyna* Linn.)

Vernacular name: Ghoda Puruni, Puruni Saga (O); Gadabani (Beng.); Swet-sa-buni (H).

Succulent, prostrate, annual herb, with forked branches. Leaves opposite or subopposite, unequal, broadly obovate, oblong or elliptic, apex obtuse; base of petiole sheathing with two stipule-like appendages. Flowers solitary, sessile, sunk in the fork, white or pink. Capsule circumscissile; seeds black.

Locally abundant in waste places; a common weed in rainy season.

Flowering : July - December
& Fruiting



APIACEAE

Centella asiatica (Linn.) Urb. (Syn: *Hydrocotyle asiatica* Linn.)

Vernacular name : Thalkuri, Thalkudi, Ghodatapua (O); Thol khuri (Beng.); Brahma Manduki, Brahmi (H).

Herbs with long creeping stems, rooting at the nodes. Leaves several from the rootstock, orbicular-reniform, base cordate, shallowly crenate, glabrous, with several slender nerves from the base. Flowers 3-5, rarely 6 in an umbel, subsessile; petals red, ovate, acute or obtuse, imbricate. Fruit orbicular to ellipsoid.

Fairly common in shady and moist localities; often in shallow water.

Flowering : Most part of the year.
& Fruiting



Eryngium foetidum Linn.

Vernacular name : Jangli Dhania, Bilaiti Dhania (O).

Erect, perennial, dichotomously branched, aromatic herb. Leaves sessile, oblanceolate-oblong, sparsely-serrate. Bracts of inflorescence with spiny tips and teeth, strongly nerved, lowermost often normal. Flowers sessile, in the axils of membranous-margined bracts; petals whitish, obovate or oblanceolate. Mericarps ovoid, densely papillose.

Planted in gardens; often run wild.

Flowering : April - August
& Fruiting



Hydrocotyle sibthorpioides Lam.
(Syn.: *Hydrocotyle rotundifolia* Roxb. ex DC.)

Creeping glabrous herb; often forming mat on damp soils; stems filiform. Leaves nearly orbicular with the lobes or lobules crenate, glabrous above. Umbels very small, 10-15-flowered. Flowers minute, sessile; petals greenish-white. Fruit sub-orbicular, glabrous, somewhat compressed, prominently ribbed.

Common in permanently moist localities under shade.

Flowering : October - March
& Fruiting



ALANGIACEAE

Alangium salvifolium (Linn.f.) Wang.
(Syn: *Alangium lamarckii* Thw.)

Vernacular name: Dhala Ankul, Ankula, Dhalangu (O); Akar-kanta (Beng.); Akola (H).

Small tree, often thorny; bark light coloured, often warty. Leaves oblong, oblong-lanceolate or elliptic, pubescent beneath. Flowers white or cream, fragrant, in axillary fascicles from the axils of fallen leaves. Fruits subglobose, or ellipsoid, black, succulent with bony endocarp and white pulp.

Quite common in scrub jungles and open waste places.

Flowering : March - April
Fruiting : June - July



RUBIACEAE

Benkara malabarica (Lam.) Tirveng.
[Syn: *Randia malabarica* Lam.;
Xeromphis malabarica (Lam.) Raju]

Vernacular name: Phirika kanta, Phiriki (O).

Rigid, thorny shrub with leafy fascicles. Leaves subsessile or shortly petiolate, oblanceolate or obovate, or some elliptic-oblong, entire, obtuse or rounded, shining coriaceous. Flowers white, salver-shaped, in dense sessile corymbs or subumbellate cymes. Berries scarlet, globose, with depressed areole.

Very common the scrub forests.

Flowering : February - July

Fruiting : October - December



Canthium dicoccum (Gaertn.) Teijsm. & Binnend. (Syn: *Canthium didymum* auct. non Gaertn. f.)

Vernacular name : Dalasinga, Karuna (O).

Large shrub with spreading or drooping branchlets. Leaves ovate or lanceolate-ovate or elliptic-ovate, acuminate, shining above, pale beneath. Flowers greenish or white; calyx-tube with the small deltoid lobes; corolla with campanulate tube and rotate lanceolate petals. Fruits black, when ripe globose or subglobose.

Abundant in scrub forests and sandstone hills.

Flowering : February - April

Fruiting : April - May



Dentella repens (Linn.) J. R. & G. Forst.

Small prostrate herbs; distichously branched, rooting at nodes. Stems 4 gonous, furrowed, glabrous. Leaves opposite, sessile or subsessile, oblanceolate or oblong-elliptic, glabrous or sparsely hairy. Flowers sessile or very shortly pedicelled, white. Fruit globose or obovoid, densely covered with hyaline trichomes, crowned by persistent calyx.

Common in damp places, lake banks and rice fields.

Flowering : April - July

Fruiting : Most part of the year.



Gardenia gummifera Linn.f.

Vernacular name : Gurudu, Bhurudu (O); Dekamali (H,Beng.).

Shrub or small tree; bark white; twigs, leaves and inflorescence often covered with resin. Leaves sessile or subsessile, oblong to obovate, obtuse or rounded. Flowers large, white, nearly sessile, solitary or sometimes 2-3 together. Fruits ovoid or ellipsoid, long, beaked with the calyx ; mesocarp fleshy.

Occasional, in dry open scrub forests.

Flowering : March - May

Fruiting : June - August



Gardenia latifolia Ait.

Vernacular name : Katarang, Damkurdu, Dambaru (O); Papra (O,K,H); Paphar (H).

Small tree, shoots stout, buds resinous. Leaves opposite, subsessile, large broadly elliptic, orbicular or obovate, upto, obtuse or rounded, secondary nerves strong. Flowers white, large, solitary, turning yellow, usually borne when the leaves are small. Fruit globose, slightly scabrous, 3-5 cm dia.

Common on rocks, rock crevices and open dry forests.

Flowering : March - April

Fruiting : December - June



Haldina cordifolia (Roxb.) Ridsd. [Syn: *Adina cordifolia* (Roxb.) Hook. f. ex Brandis]

Vernacular name: Kuruma (O).

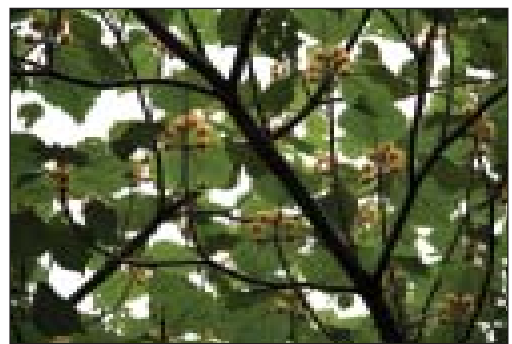
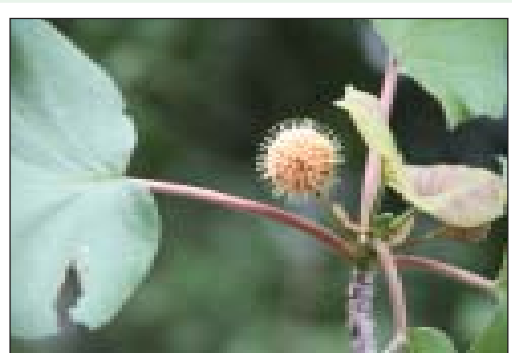
Large tree; bark smooth, light-coloured, exfoliating in patches. Leaves broadly ovate, shortly abruptly acuminate, glabrescent to minutely pubescent above, pubescent to tomentose beneath; stipules suborbicular, enclosing the terminal bud. Flowers yellow, in axillary heads; peduncles with 2 small caducous bracts towards the end. Fruiting heads dry.

Planted in the garden; common in dry deciduous forests.

Flowering : June - July

Fruiting : November - March

Deciduous: February - May



***Hedyotis brachiata* Wight [Syn: *Oldenlandia brachiata* (Wight) Hook.f.]**

Very slender, erect, annual herb. Stem acutely 4-6-angled, glabrous. Leaves linear or almost filiform. Flowers white, minute, on capillary pedicels, in elongate lax terminal cymes and sometimes also a few axillary. Capsule small, broadly didymous.

Locally common in lateritic exposed soils and rocky grounds.

Flowering : July - October.
& Fruiting



***Hedyotis corymbosa* (Linn.) Lam. (Syn: *Oldenlandia corymbosa* Linn.)**

Vernacular name: Gharpodia, Charpodia (O); Khet papra (Beng.), Pit papra (H).

Diffuse, slender, annual herb. Leaves linear, linear-lanceolate, margins recurved. Flowers white, minute, paired, rarely 3-4 on the axillary peduncles; corolla slightly exceeding the calyx lobes. Capsule globose or slightly pyriform, somewhat didymous.

One of the most common weeds in wastelands and grassy areas.

Flowering : June - December
& Fruiting



Hedyotis diffusa Willd. [Syn: *Oldenlandia diffusa* (Willd.) Roxb.]

Diffuse, glabrous herb. Leaves sessile, linear or lanceolate, glabrous. Flowers white, axillary, solitary or in pairs, sessile or with peduncles, scarcely exceeding the length of the flower. Capsule truncate, smooth, protruded beyond the calyx, loculicidal. Seeds angular, reticulate.

Frequent in wet places, field bunds and margins of shallow water bodies.

Flowering : May - November
& Fruiting

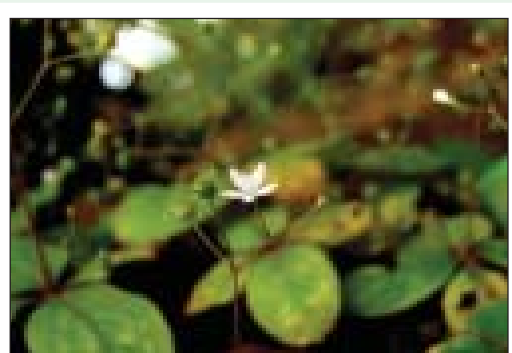


Hedyotis ovatifolia Cav. [Syn: *Oldenlandia nudicaulis* Roth; *Thecagonum ovatifolium* (Cav.) Babu]

Small herbs; stems rarely branched. Leaves rosette-like, usually of two pairs, broadly elliptic or ovate, obtuse or rounded, glabrous, pubescent on nerves beneath and ciliate. Flowers white, in long-stalked dichotomous cymes; corolla throat villous. Capsule loculicidal at the top; seeds brown, angular.

Common in shady moist localities during rains.

Flowering : August - November.
& Fruiting



Ixora pavetta Andr. (Syn: *Ixora parviflora* Vahl; *Ixora arborea* Roxb. ex Sm.).

Vernacular name : Telkoruan, Telkurma (O); Rangan (Beng.), Kota gandhal nevari (H).

Large shrub or small tree. Leaves subsessile, oblong or elliptic, obtuse or rounded, coriaceous, smooth. Flowers fragrant, white, subsessile, in usually very compact panicles; petals spreading and reflexed, very obtuse. Fruit shining black, depressed globose.

Fairly abundant in dry mixed forests, occasionally planted in gardens.

Flowering : March - May

Fruiting : May - June



Ixora undulata Roxb.

Vernacular name: Karuna (O); Palaka-jui (Beng.).

Large shrub. Leaves oblong or lanceolate, acute or usually acuminate, margin mostly undulate, glabrous, shining. Flowers white, odorous, corymbose on slender branches of long peduncled brachiate panicles. Fruit dull purple or slate coloured, succulent.

Occasional in damp areas in forests and sandstone hills.

Flowering : April - May

Fruiting : August - September



Knoxia sumatrensis (Retz.) DC.
(Syn: *Knoxia corymbosa* auct. non Willd.)

Erect, slender annual herb. Stems with long internodes, 3-chotomously branched above, pubescent or tomentose. Leaves petiolate, lanceolate to linear-lanceolate, acute to acuminate, pubescent. Inflorescence terminal corymbose panicle, spiciform. Flowers purplish. Fruits somewhat compressed and rigid.

Frequent as undergrowth in forests.

Flowering : July - December
& Fruiting



Meyna spinosa Roxb. ex Link. var.
pubescens Robyns (Syn: *Vangueria pubescens* Kurz)

Vernacular name: Salara, Nangal Kanta (O).

Small tree or large shrub, often armed with long straight supra-axillary thorns. Leaves ovate, elliptic or oblong, acute or acuminate or obtusely acuminate, pubescent. Stipules short and broad, very obtuse, caducous. Flowers small, green, subglobose, in dense axillary cymes. Fruit subglobose, with 5-6 radiating flattened pyrenes.

Very common in thorn scrubs, open forests and roadsides.

Flowering : April - May
Fruiting : August - December



Mitracarpus villosus (Sw.) DC. [Syn: *Mitracarpus verticillatus* (Schum. & Thonn.) Vatke

Erect or diffuse hairy herb, upto 30 cm tall; stems and branches 4-angled. Leaves sessile, ovate-lanceolate, acute, pubescent; stipules interpetiolar, forming a pectinate sheath. Flowers small, white, in axillary fascicles; calyx campanulate, hairy, lobes 4; corolla funnel-shaped; ovary 2-celled, ovule 1 per cell. Capsule globose, circumscissile; seeds minute.

Common weed in waste places, roadsides and agricultural fields during post-monsoon period.

Flowering : September - February.
& Fruiting



Mitragyna parvifolia (Roxb.) Korth. (Syn: *Stephegyne parvifolia* (Roxb.) Korth.

Vernacular name: Mitikini, Keli-kadamba (O), Mitkunia (Beng.); Kaim, Kadam (H).

Moderate-sized deciduous tree. Leaves broadly elliptic or obovate, obtuse, glabrous except near the axils of the prominent secondary nerves. Flowers crowded in globose, axillary and terminal peduncululate heads, white, narrowly funnel-shaped; stigma mitriform. Capsules ellipsoid, verrucose.

Occasional in dry forests, often planted.

Flowering : May - June
Fruiting : March - April



Morinda pubescens Sm. (Syn: *Morinda tinctoria* Roxb.; *Morinda tomentosa* Heyne ex Roth; *Morinda coreia* Buch.-Ham.)

Vernacular name : Achu, Aachhu (O); Ach (Beng., H).

Small tree. Leaves ovate, obovate, elliptic or oblanceolate. Heads solitary or 2-nate, axillary, leaf-opposed or terminal. Flowers white, more or less connate by their hypanthia into heads. Fruit forming a pseudocarp with the succulent enlarged hypanthia enclosing many 1-seeded pyrenes, usually whitish-green, marked by lines.

Common through out the area; mostly in dry forests.

Flowering : April - July

Fruiting : November - April



Neolamarckia cadamba (Roxb.) Bosser [Syn: *Anthocephalus chinensis* (Lam.) A. Rich. ex Walp.; *Anthocephalus cadamba* (Roxb.) Miq.]

Vernacular name : Kadamba (O, Beng., H).

Large straight deciduous trees with spreading branches; bark smooth, dark grey. Leaves large, elliptic-oblong or ovate, entire, acute or shortly acuminate. Heads globose, peduncle stout. Flowers small orange-coloured, fragrant; stigmas white, far exserted. Pseudocarp large, fleshy, orange.

Planted in gardens, parks and roadsides; wild in damp hilly forests.

Flowering : May - July

Fruiting : August - October



Paederia foetida Linn. (Rubiaceae)

Vernacular name : Pasaruni, Prasaruni, Gandhali (O, H), Somaraji (Beng.).

Foetid shrub, climbing by means of twining stems. Leaves elliptic-ovate, oblong-ovate, narrow-ovate or ovate, acute or acuminate, glabrous, axils sometimes hairy. Flowers in axillary and terminal 2-3-chotomously branched paniced cymes; purple, nearly sessile, tubular-funnel-shaped. Fruit elliptic-ovate or oblong, compressed, polished, often red.

Occasionally planted in gardens, also wild in hedges and forests.

Flowering : July - August

Fruiting : September - November.



Pavetta tomentosa Roxb. ex Sm.
[Syn: *Pavetta indica* Linn. var. *tomentosa* (Roxb.) Sm. Hook. f.]

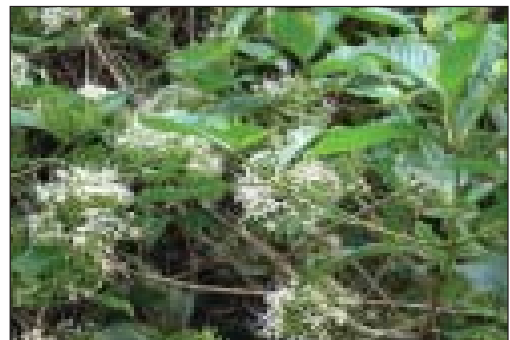
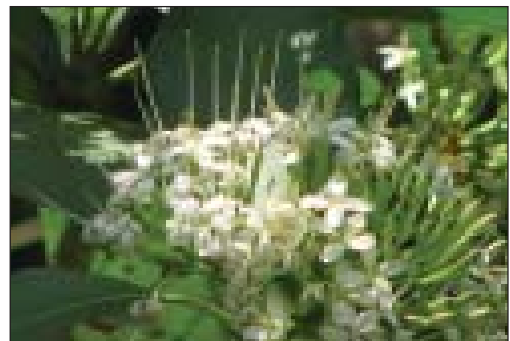
Vernacular name : Kukur-chalia, Macharanka (O); Jui (Beng.).

Shrub with obovate, obovate-elliptic or elliptic leaves, acuminate, softly tomentose beneath. Inflorescence branches tomentose; flowering shoots covered with cork upto the inflorescence. Flowers white, tubular; calyx tomentose; style far exserted. Fruit green, turning black when ripe, globose.

Frequent in scrub forests and thickets.

Flowering : May - July

Fruiting : November - December



Richardia scabra Linn.

Annual, decumbent, hispid herbs; branches angular. Leaves sub-sessile, ovate or elliptic-ovate, with stiff hairs on nerves, scabrous on both sides. Flowers white, in terminal capitate clusters subtended by 2-4 leafy bracts; corolla funnel-shaped, 6-lobed. Capsule 3-celled, pappilose-hairy; seed 1 in each cell.

Common weed in wastelands and cultivated fields; a recent introduction to the area.

Flowering : May - December
& Fruiting



Spermacoce articularis Linn.f.

Vernacular name : Solaganthi, Sanagharpodia (O); Madana banta-kadu (Beng.).

Diffuse or prostrate herb. Stems sharply 4-angled, scabrid or hispid. Leaves obovate, oblanceolate, elliptic, obtuse or rounded, bristles on stipules long. Flowers pink or pinkish-white, in axillary few-flowered sessile clusters. Capsule hispid above, glabrous below, 2-valved, splitting; seeds oblong, brown, finely reticulate.

Very common weed of waste places and scrub jungles during rainy season.

Flowering : July - October
Fruiting : September - December



Spermacoce latifolia Aub.
[*Borreria latifolia* (Aub.)K. Schum.;
Borreria eradii Ravi]

Decumbent herb. Stem 4-angled and winged. Leaves broadly ovate to ovate-elliptic, scabrid on both surfaces; stipules with 5-7 papillate bristles. Flowers white, in sessile, axillary, few-flowered cymes. Capsule sub-globose, densely pubescent.

A rapidly spreading weed in moist waste places, grassy fields and rocky localities during rains.

Flowering : August - December
& Fruiting



Spermacoce mauritiana Osea Gideon
ex Verdcourt [*Borreria repens* DC.;
Spermacoce decandollei Deb & Dutta]

Diffuse, annual herbs. Stem fleshy, 4-angled, hairy on the margins. Leaves ovate or elliptic-lanceolate; stipules of 3-5 bristles. Flowers minute, white, in dense capitulate cluster. Capsule urn-shaped, compressed, with 2 long recurved sepals; seeds elliptic, ventrally grooved.

Common in shady moist localities, often associated with *Mitracarpus villosus*, *Spermacoce articularis* and grasses.

Flowering : September - January
& Fruiting



Spermacoce pusilla Wall. [Syn: *Borreria pusilla* (Wall.) DC.; *Borreria stricta* auct. mult. non (Linn.f.) K. Schum.]

Erect, slender, scarcely branched herb; stem obtusely 4-angled, minutely pubescent to glabrous. Leaves sessile, linear to linear-lanceolate, acute to acuminate, scabrid; margins strongly revolute. Flowers minute, pink, in dense axillary and terminal clusters. Capsules glabrescent.

Very common in wastelands, grassy fields and road sides during post-monsoon period.

Flowering : July - September

Fruiting : October - December



Tamilnadia uliginosa (Retz.) Tirveng. & Sastre [Syn: *Randia uliginosa* (Retz.) DC.; *Xeromphis spinosa* (Retz.) Maheswari]

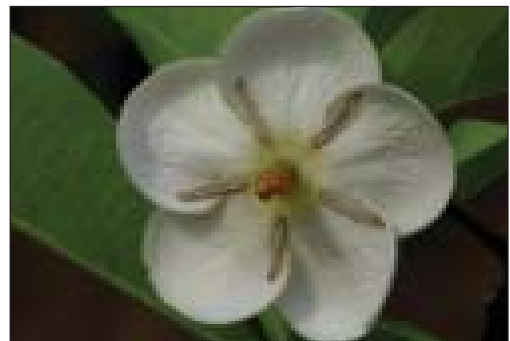
Vernacular name: Tolaka, Telkur (O).

Small thorny tree or shrub; spines short, sharp, in 1-2 pairs at the ends of arrested branchlets. Leaves petiolate, crowded towards the ends of the branchlets, obovate, oblong or elliptic; stipules broad rounded. Flowers white, fragrant, solitary. Fruit large, ellipsoid or ovoid, smooth, yellow. Seeds compressed, smooth, closely packed in pulp.

Occasional, in forests on degraded soils.

Flowering : April - July

Fruiting : October - January



Tarenna asiatica (Linn.) Kuntze ex Schum. (Syn: *Webera corymbosa* Willd.)

Vernacular name: Jaujauka (O); Konkra (Beng.).

Small or large shrub; branchlets glabrous. Leaves oblong or oblanceolate-oblong, acute or acuminate, glabrous, shining above, nerves prominent, turning black on drying. Flowers fragrant, white, in 3-chotomous glabrous corymbose cymes. Berry black, globose, seeds 3-4 in each cell.

Fairly common in rocky soils and scrub forests.

Flowering : October - November

Fruiting : November - January



ASTERACEAE

Acanthospermum hispidum DC.

Vernacular name: Gokhara (O).

Hispid herb. Leaves obovate to oblanceolate, coarsely serrate, acute to obtuse, white-strigose on both sides. Heads solitary axillary, at the forks of the branches. Involucre 2-seriate; outer involucre bracts foliaceous. Flowers yellow or creamish-white. Achenes of ray florets fertile, echinate with uncinat prickle.

A common weed in waste places and cultivated fields.

Flowering : December - March
& Fruiting



Adenostemma lavenia (Linn.) Kuntze
(Syn: *Adenostemma viscosum* Forst. f.)

Vernacular name: Pani Pokasunga (O);
Buro-keshuli (Beng.).

Herbs, often decumbent, corymbosely branched above. Leaves ovate, coarsely crenate or serrate, acute or subacute, glabrous. Heads white. Involucral bracts oblong or oblanceolate-oblong, obtuse. Florets glandular. Achenes curved, angled, verrucose.

Commonly found in stagnant and shallow water bodies and swamps.

Flowering : October - December.
& Fruiting



Ageratum conyzoides Linn.

Vernacular name : Pokasunga (O);
Uchunti, Dochunty (Beng.); Goat weed (E).

Erect hispidly hairy herb. Leaves petioled, ovate, coarsely crenate, acute, hairy. Heads white or blue-purple, involucre campanulate; bracts oblong-lanceolate, serrulate towards apex, acute. Achenes black, slightly curved; pappus of 5 awned scales.

Gregarious weed in wastelands, road sides and cultivated fields.

Flowering : All the year round.
& Fruiting



***Bidens biternata* (Lour.) Merr.**
(*Bidens pilosa* auct. non Linn.)

Vernacular name: Magha latenga (O).

Erect herb, stem angular, sparsely pubescent when young. Leaves with pinnatifid leaflets; lateral leaflets ovate, acute at apex, sessile or attenuate at the base. Heads many, on dichotomously branched peduncles; ray florets yellowish-white. Achenes linear, tetragonous; pappus of 2-4 stiff, retrose barbed bristles.

Frequent in waste places, road sides and forest edges.

Flowering : September - December.
& Fruiting



***Blainvillea acmella* (Linn.) Philipson**
[Syn: *Blainvillea latifolia* (Linn.f.) DC.]

Erect, hispid-pubescent herb. Leaves opposite of upper alternate, coarsely serrate or crenate-serrate, hairy both sides, base 3-nerved. Heads solitary on the forks and subcorymbose at the top of the branches, white, enlarging in fruit. Involucral bracts 2-seriate. Achenes pubescent on margins; pappus of 3 bristles.

Occasional, in cultivated fields, gardens and wastelands.

Flowering : September - January
& Fruiting



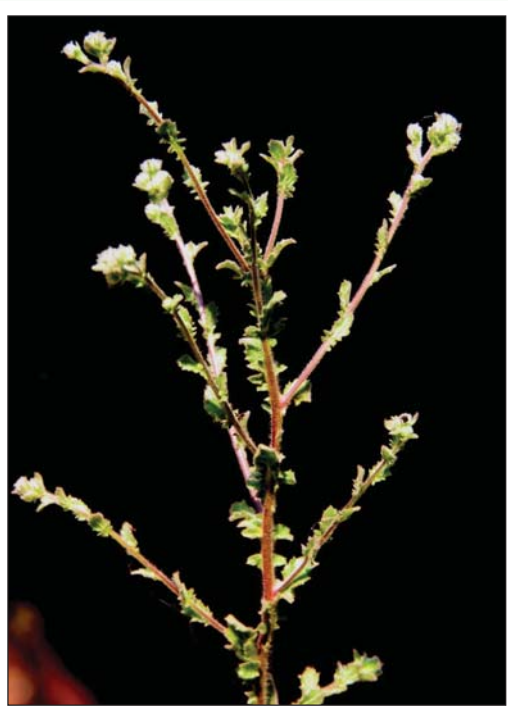
Blumea aurita (Linn. f.) DC. [Syn: *Laggera aurita* (Linn. f.) Benth. ex C. B. Clarke

Vernacular name: Pokasunga (O).

Strongly aromatic, villous, viscid herb. Stems branched above. Leaves auriculate and with 2-3 lobes on each side of the stem, deeply cut or pinnatifid, dentate, villous, with short gland-tipped hairs on both sides. Heads ovoid, in sub-racemes or corymbs at the ends of the upper branches. Corolla and anthers purple. Achenes hairy; pappus white, persistent.

Occasional, a weed along roads and moist waste places.

Flowering : January - March
& Fruiting



Blumea lacera (Burm. f.) DC.

Vernacular name: Pokasunga, Kukursunga (O); Bara poksung (Beng.); Kukranda(H).

Aromatic herb, subtomentose or pubescent. Leaves elliptic oblong to obovate-oblong, sharply sometimes doubly toothed and lower often lyrate or lobulate. Heads pedunculate in axillary and terminal, dense to lax panicles. Corollas yellow. Achenes oblong, subangular, minutely pubescent or glabrescent; pappus white.

Common weed of wastelands.

Flowering : February - June
& Fruiting



Caesulia axillaris Roxb.

Vernacular name: Jamjuria (O).

Erect or suberect annual herb. Leaves linear or linear-oblong, remotely denticulate, acute, glabrous; base tapering into a short petiole with dilated semi-amplexicaul sheathing base, embracing the cluster of heads. Heads white, each enclosed by two fleshy, strongly compressed involucrel bracts with a hyaline appendage. Anthers exerted. Achenes brown, obovoid, smooth, glabrous.

Occasional, in marshy places and bunds of rice fields.

Flowering : August - January
& Fruiting



Centipeda minima (Linn.) A.Braun & Asch. (Syn: *Centipeda orbiculata* Lour.)

Vernacular name: Nakchinka (O); Mechitta (Beng.); Nak-chikni, Nagdowana (H).

Small prostrate herb with many-branched stems, spreading from the root. Leaves ovate-oblong, coarsely toothed or lobed, glabrescent or minutely puberulous beneath. Heads very small, disciform, yellow, sessile or subsessile, globose. Involucrel bracts spatulate. Achenes minute, sharply 4-angled.

Rare, normally observed in open moist localities.

Flowering : March - January
& Fruiting



***Chromolaena odorata* (Linn.) King. & Robins. (Syn: *Eupatorium odoratum* Linn.)**

Vernacular name : Pokasunga, Gachha Pokasunga (O).

Erect shrub, stems terete. Leaves petiolate, deltoid-ovate, coarsely toothed, acuminate, pubescent on both sides, base cuneate. Heads bluish, cylindrical, in dense terminal corymbs; corolla tubular campanulate, 5-lobed. Achenes slender, angular, with 4-5 slightly scabid ribs; pappus whitish.

Quite gregarious in scrub jungles, forests and wastelands; exotic species, thoroughly naturalised and weedy.

Flowering : October - December
& Fruiting



***Eclipta prostrata* (Linn.) Linn. [Syn: *Eclipta alba* (Linn.) Hassk.]**

Vernacular name : Kesatura, Kesarda, Bhrungaraj (O); Bhangra (H); Kesoti, Keshori (Beng.).

Erect or prostrate herb, usually much branched, hispid or hirsute all over. Leaves usually oblong or elliptic, subentire or toothed, acute or acuminate. Heads subglobose, white, with short or long peduncle. Involucral bracts ovate, strigose, 1-3 nerved. Outer florets with narrow, white ligule; disc floret campanulate. Achenes 2-edged, verrucose.

Frequent in moist places, ditches, rice fields and waste places.

Flowering : August - December
& Fruiting



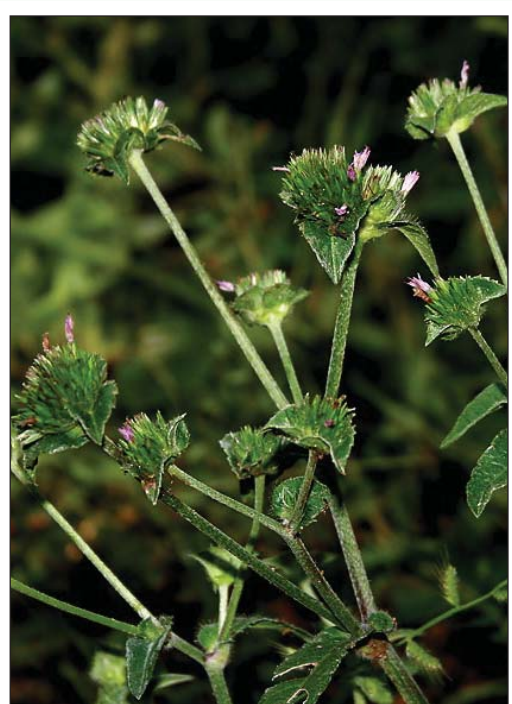
Elephantopus scaber Linn.

Vernacular name: Mayurchandrika, Mayurchulia, Tutamuli, Chota Rasna (O); Gojialata, Somdulun (Beng.).

Erect rigid herb, 15-30 cm; stem slender, dichotomously branched, strigosely hairy. Radical leaves rosulate or clustered, large, obovate or oblanceolate, petiole with sheathing base. Upper leaves alternate, small, sessile or amplexicaul, obovate, serrate. Heads homogamous, with 3 conspicuous leafy bracts, disciform, of 2-5 florets; involucre bracts 8, conduplicate. Corolla purple. Achenes truncate, brown, hairy.

Very common as undergrowth in forests and in shady moist localities under trees.

Flowering : August - December
& Fruiting



Emilia sonchifolia (Linn.) DC.

Vernacular name: Sarkara (O); Sadhi modi (Beng.); Heran Khuri (H).

Glabrous or glabrescent, erect, rarely diffuse herb; stems sometimes sparsely hairy at base. Lower leaves lyrate and usually pinnatifid, upper cauline leaves few, lanceolate or oblong-lanceolate. Heads pink or purple, narrow cylindric. Florets rose, scarcely longer than the involucre.

Common in moist and shady localities and cultivated fields.

Flowering : August - April
& Fruiting



Enydra fluctuans Lour.

Vernacular name : Hidimichi (O); Hingch (Beng.); Harakuch (H).

Prostrate herb, rooting at the nodes; stems succulent, with short ascending flowering branches. Leaves narrowly oblong, serrate, punctate beneath. Heads yellowish-white, terminal and axillary, sessile. Involucral bracts 4, foliaceous, greenish yellow. Corolla of ray florets 3-lobed to one side. Achenes oblong; pappus absent.

Locally gregarious in lakes, ponds and ditches; occasional in wet grounds.

Flowering : December - February
& Fruiting

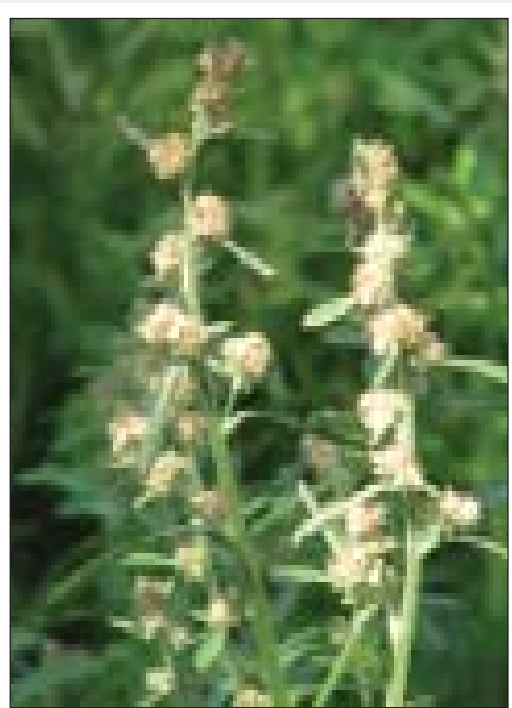


Gnaphalium polycaulon Pers. (Syn: *Gnaphalium indicum* auct. non Linn.)

Woolly or softly cottony herb; stems spreading from the base, central one erect. Leaves narrowly oblong or spatulate. Heads in axillary clusters from the upper leaves and forming terminal spikes. Involucral bracts erect, linear-oblong or ovate-lanceolate, usually green below and shining yellow above. Achenes hispidulous; pappus hairs free.

Abundant in wet places through out the area.

Flowering : January - April
& Fruiting



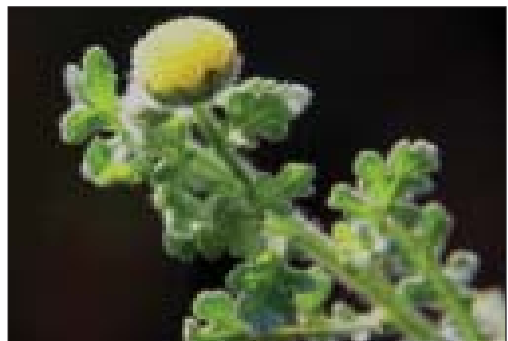
Grangea maderaspatana (Linn.) Poir.

Vernacular name : Agnikumari, Painjari (O); Namati (Beng.); Mastaru, Mukha tari (H).

Procumbent herb; branches villous or hirsute. Leaves oblong, pinnatifid or lobulate, villous. Heads globose, shortly peduncled, yellow; outer florets very slender with long exerted style, inner usually with 4-lobed cololla. Achenes stipitate, pale brown; pappus cupular with a ring of short hairs.

Very common weed of wastelands and agricultural fields.

Flowering : January - April
& Fruiting



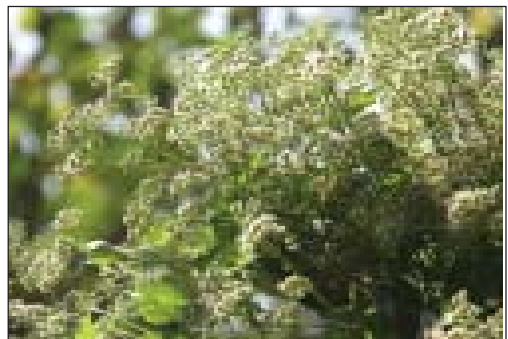
Mikania micrantha Kunth (Syn: *Mikania scandens* auct. non Willd.)

Vernacular name: Salamari (O).

Climbing herb; stems lightly pubescent or glabrous. Leaves deltoid-ovate, margins coarsely undulate, dentate or sometimes entire, acute or acuminate, glabrescent or sparsely pubescent on both sides. Heads cylindric, numerous in corymbs, borne on short axillary branches; corolla greenish-white. Achenes dark brown, narrowly oblong, glandular; pappus white.

Gregarious and fast-spreading abnoxious weed in hedges, scrub forests and thickets through out the area.

Flowering : November - March.
& Fruiting



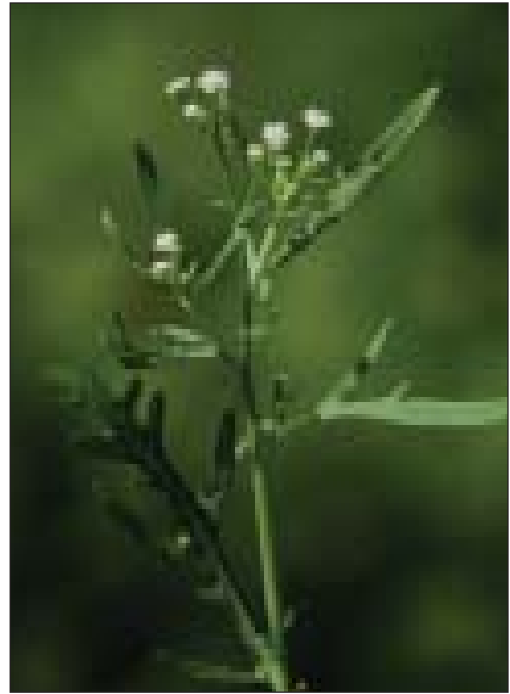
Parthenium hysterophorus Linn.

Vernacular name: Bila Pokasunga, Nakachana (O); Congress Grass (E).

Erect, pubescent herb. Leaves oblong or obovate-oblong, bipinnatifid, pubescent; lobes, acute. Panicles terminal, lax, dichotomous. Heads heterogamous; involucre campanulate; flowers white. Achenes compressed; pappus of 2, strongly reflexed awns running parallel to the angles of the achene; awns smooth, as long as the achene.

Rapidly-spreading and gregarious weed in waste places and roadsides.

Flowering : Mainly October - April
& Fruiting



Pentanema indicum (Linn.) Y. Ling
[Syn: *Vicoa indica* (Linn.) DC.]

Vernacular name: Bana Sebati (O).

Erect much branched rigid herb. Leaves sessile, lanceolate or oblong-lanceolate, auricled at base, entire or serrulate, hispidulous above, pappilose-pubescent beneath. Heads solitary, yellow, in large corymbose and loose panicles. Involucral bracts glandular. Achenes terete, villous; pappus of ray florets 0.

Occasional, in dry forests among bushes.

Flowering : November - March
& Fruiting



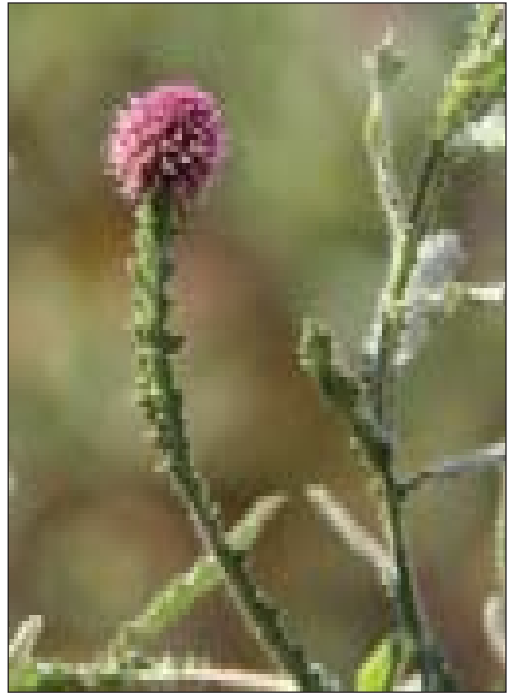
Sphaeranthus indicus Linn.

Vernacular name: Bhuin kadamba, Gorakmundi, Halamundi (O); Mundi (Beng, H).

Aromatic glandular, pilose herb. Stems winged; wings irregularly toothed. Leaves sessile or semi-amplexicaul, obovate or oblanceolate, serrate-dentate, sometimes spinulose-dentate, pilose on both sides. Clusters of heads terminal and leaf-opposed, purple, spherical. Peduncles with crisped or toothed wing.

Quite common in open wet grounds; especially in crop fields forming matted growth after crop harvest.

Flowering : November - March
& Fruiting

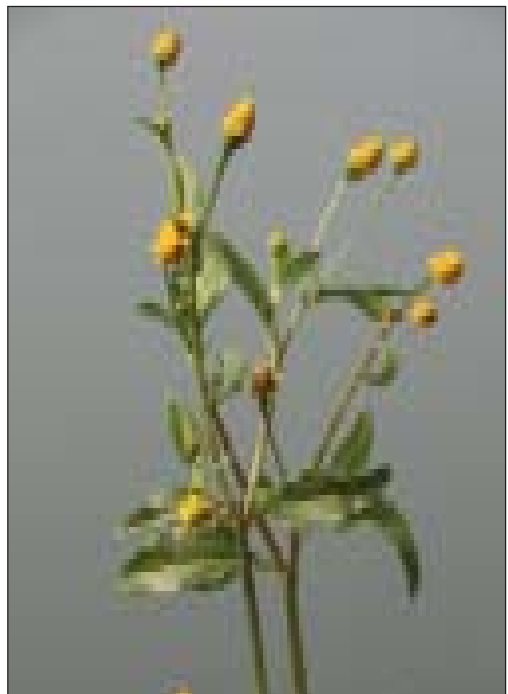


Spilanthes paniculata Wall. ex DC.
[*Spilanthes acmella* var. *paniculata* (DC.) C. B. Clarke]

Erect herb, sometimes rooting at nodes. Leaves ovate or broadly ovate, serrate, acute, base decurrent on petioles. Heads ovoid or ovoid-conical, elongating in fruit. Involucral bracts 2-seriate, elliptic-lanceolate. Achenes narrowly obovate, strongly ciliate on margins; pappus bristles 1-2, weak.

Fairly common in marshy localities and along roads.

Flowering : October - February
& Fruiting



Synedrella nodiflora (Linn.) Gaertn.

Erect dichotomously branched herb. Stems sparsely appressed-pubescent. Leaves ovate, serrate-dentate, acute, appressed hairy on both sides, base 3-nerved, cuneate. Involucral bracts elliptic-ovate, outer two foliaceous, pilose, inner ones membranous. Corolla yellow. Ray achenes oblanceolate, winged, the wings lacerate; the disc achenes narrowly oblanceolate, compressed, muricate.

Occasional, in moist localities and roadsides; often making pure formations.

Flowering : September - February
& Fruiting



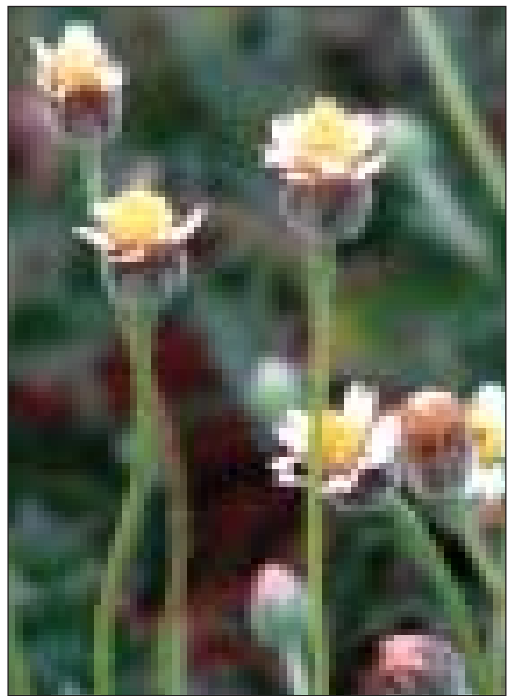
Tridax procumbens Linn.

Vernacular name: Bisalya karani (O).

Procumbent hairy herb. Leaves distant, petiolate, ovate or lanceolate, coarsely toothed or lobed; lobes serrate, acute or acuminate, hairy on both sides.. Outer involucral bracts ovate, hirsute, herbaceous, inner oblong, membranous. Flowers yellow or creamy-white. Achenes black, densely hairy or silky.

One of the commonest weed of open waste places, grassy grounds and scrub forests.

Flowering : All the year round.
& Fruiting



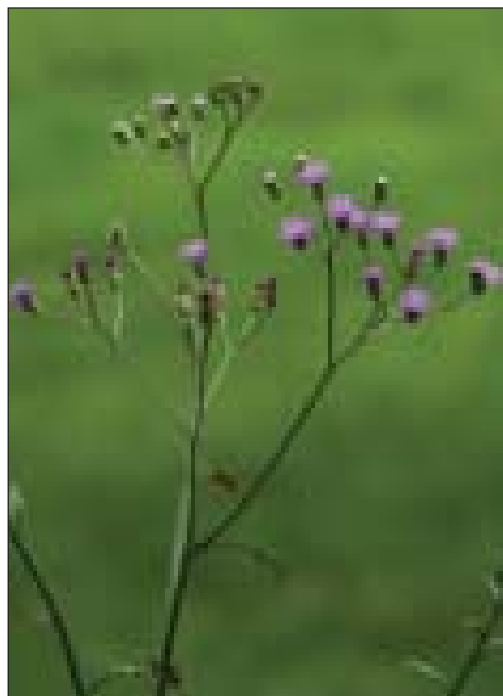
Vernonia cinerea (Linn.) Less.

Vernacular name: Pokasunga (O); Kalajira, Kukshim (Beng.); Sahadevi, Sadodi (H).

Erect or decumbent herb. Stems ribbed, hairy; branches often hoary-tomentose. Leaves linear to elliptic, ovate or obovate, entire or toothed, acute or obtuse, pubescent or hairy, sessile or attenuate into a short petiole. Heads purplish, pink or violet, distinctly peduncled, in dense or very loose panicles. Achenes not ribbed, hairy; pappus caducous, with an outer ring of persistent hairs.

Common weed of waste places.

Flowering : Most part of the year.
& Fruiting



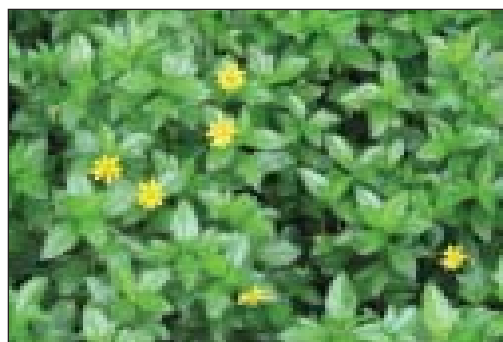
Wedelia chinensis (Osbeck) Merr.
[Syn: *Wedelia calendulacea* (Linn.) Less.

Vernacular name: Kasaraj, Bhimraj (Beng.); Bhangra, Pilabhangra, Bhanra (H).

Procumbent or ascending herb; stems creeping below, strigose. Leaves subsessile or shortly petiolate, oblanceolate or lanceolate oblong, sparsely strigose both sides, crenate or with large serratures. Heads at the ends of long peduncles from the upper leaf axils, yellow; corolla lobes of disc florets ciliolate. Pappus a denticulate membranous cup.

Occasional in moist situations; probably introduced and naturalises through out the area.

Flowering : September - April
& Fruiting



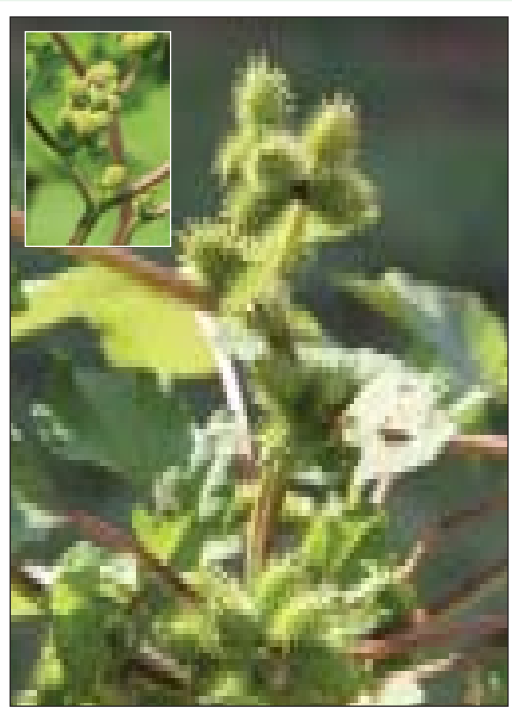
Xanthium indicum Koenig (Syn: *Xanthium strumarium* Linn.)

Vernacular name: Bada Gokhara, Bila Gokhara (O)

Annual erect herbs, stems coarsely hispidulous. Leaves long-petioled, ovate-triangular, coarsely lobed and toothed, scabrid and hispid, base often cordate and 3-nerved. Female involucre burr-like, closely covered with hooked spines; male heads at the top of the inflorescence or stem, with prominent exerted anthers. Achenes of female florets enclosed in hardened cells of the urticule.

Fairly abundant weed in wastelands and road sides.

Flowering : Throughout the year.
& Fruiting



CAMPANULACEAE

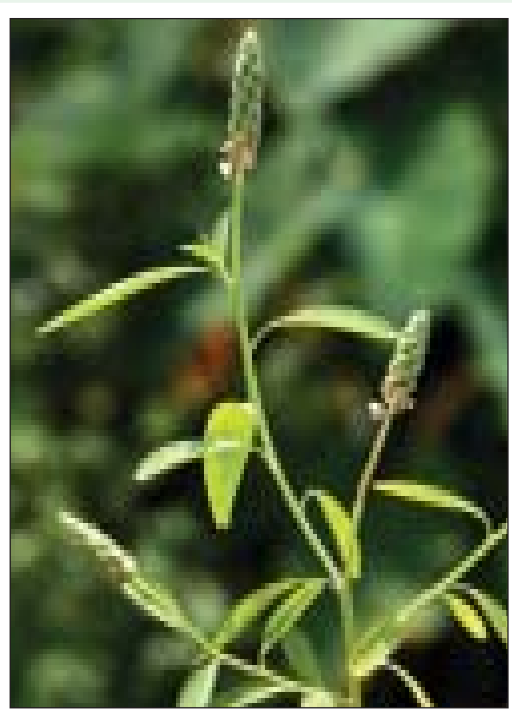
Sphenoclea zeylanica Gaertn.

Vernacular name: Pani Maricha, Pani Lanka (O); Kachhrang, Jhil Marich (Beng.)

Erect annual glabrous herb with fibrous roots. Stem 20-60 cm tall, much branches, fistular. Leaves alternate, shortly petiolate, oblong or oblong-lanceolate, entire, subacute. Flowers small, sessile, in dense terminal or leaf-opposed long-peduncled spiles; calyx-tube adnate to the ovary, lobes 5; corolla campanulate, 5-lobed, white. Fruit a membranous depressed-globose capsule; seeds minute, oblong.

Fairly abundant along the margins of ponds, lakes and in swamps and rice fields.

Flowering : September - January
& Fruiting

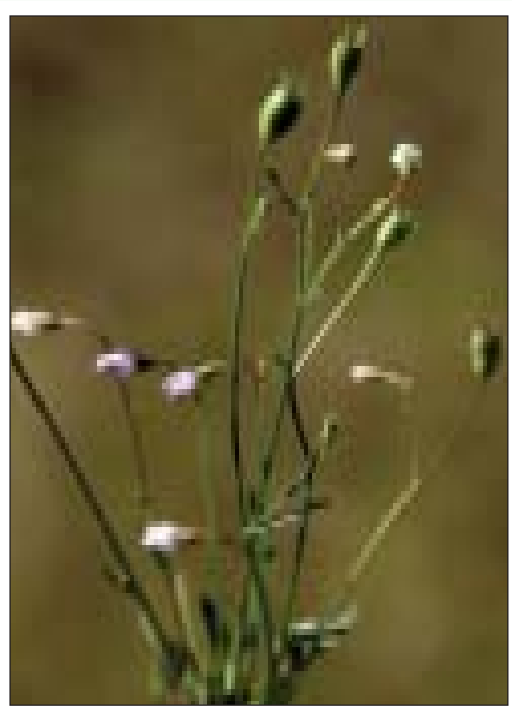


Wahlenbergia marginata (Thunb.) A. DC. [Syn: *Wahlenbergia gracilis* (Forst. f.) Schrad. ex A. DC.]

Erect or sub-erect glabrous herb, 5-30 cm high with many branches from the root. Leaves sessile, linear to linear-oblong, denticulate. Inflorescence 1-few-flowered; branches of panicle bifurcate. Flowers white or pale blue, narrowly campanulate; corolla with distinct tube. Capsule obconical to bell-shaped, usually 10-nerved, 2-3-valved.

Occasional in damp soils, rice fields and margins of water bodies.

Flowering : January - April
& Fruiting



LOBELIACEAE

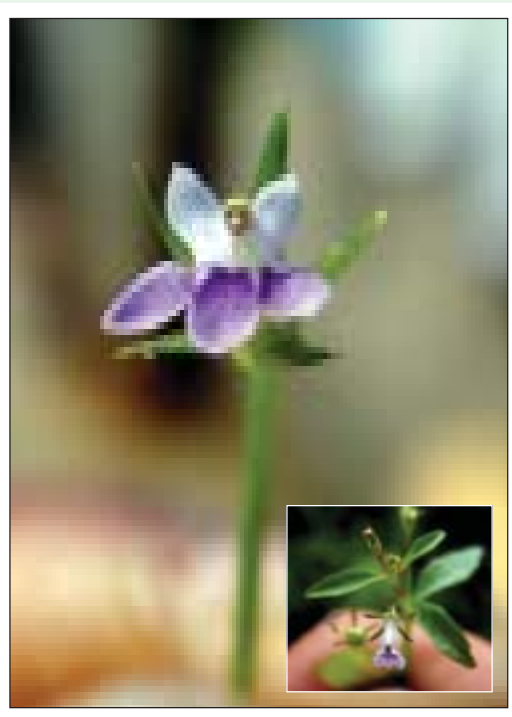
Lobelia alsinoides Lam. (Syn: *Lobelia trigona* Roxb.)

Vernacular name: Panimali (O).

Small annual herb with many ascending branches; stems 3-angled and winged. Leaves, sessile or subsessile broadly ovate or rounded, dentate or crenate-dentate, obtuse, rounded, subacute or acute, glabrous. Flowers white or blue. Capsule obconical, apically 2-valved. Seeds distinctly trigonous.

Fairly common in shady moist localities and damp places.

Flowering : September - December
& Fruiting



PLUMBAGINACEAE

Plumbago zeylanica Linn.

Vernacular name : Dhala chitaparu, Chintamani (O); Chitarak, Chitra (Beng., H).

Undershrub. stems spreading, terete, striate, glabrous. Leaves ovate or oblong-ovate, acute or subacute, glabrous, somewhat glaucous beneath. Flowers white, in elongate, terminal, often paniced racemes; rachis with sessile glands. Calyx narrowly tubular, densely covered with stalked glands. Capsule oblong, acute, with 5 furrows.

Common in scrub forests and among hedges and bushes.

Flowering : September - April
& Fruiting



SAPOTACEAE

Madhuca indica Gmel. (Syn: *Madhuca longifolia* (Koenig.) Mc Bride var. *latifolia* A. Chev.; *Bassia latifolia* Roxb.)

Vernacular name: Mahula (O, Beng.); Mahua (O, H); Butter tree (Eng.).

Large or moderate-sized tree; bark brown. Branchlets pubescent or tomentose. Leaves clustered near the ends of the branches, elliptic, elliptic-oblong or ovate, acuminate, pubescent or rusty tomentose beneath when young. Flowers cream, fleshy, clustered at the ends of the usually leafless branches. Berry globose-oblong or ovoid, fleshy, 1-3 seeded, tomentose.

Occasional in forests; also planted in gardens and roadsides.

Flowering : February - April
Fruiting : May - July



***Manilkara hexandra* (Roxb.) Dubard**
(Syn: *Mimusops hexandra* Roxb.)

Vernacular name : Khirakoli, Khirni (O);
Khirkhejur (Beng.); Khirni (H).

Small tree with milky juice; bark rough, grey. Leaves clustered towards the ends of the branches, oblanceolate-oblong, elliptic, elliptic-oblong, entire, apex rounded and often emarginate, glabrous. Flowers small, white. Berry oblong-ellipsoid, 1-6 seeded, orange-yellow and sweet when ripe.

Fairly abundant in sandstone hills and calcareous soils.

Flowering : November - January

Fruiting : March - June



***Manilkara zapota* (Linn.) P. Royen**
(Syn: *Achras zapota* Linn.)

Vernacular name: Sapeta (O); Sapota (Eng., O); Chiku (H).

Evergreen trees, with milky latex; bark grey. Leaves clustered at the end of branches, oblong, oblong-lanceolate, acute or sub-acute, shining on both surfaces. Flowers solitary, axillary, creamish white; pedicels long, rusty-tomentose. Berry globose, epicarp brownish, flesh pink; seed oblong, black, shining.

Commonly planted in gardens, orchards and homesteads.

Flowering : April - July

Fruiting : February - March.



Mimusops elengi Linn.

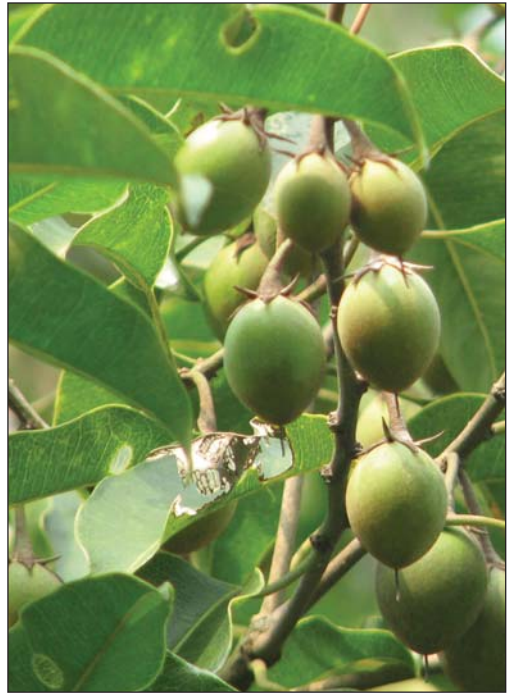
Vernacular name : Baula, Bakula (O, Beng.); Baula, Bauilo, Maulsari, Malsari (H).

Medium or small evergreen tree. Leaves elliptic or elliptic-oblong, margins often wavy, acute or acuminate, shining, glabrous. Flowers pedicelled, white, fascicled; corolla-lobes 8, lanceolate and subsimilar; stamens 8 + inner series of petaloid and toothed staminodes. Berry usually narrowly ovoid or ellipsoid, orange, 1-seeded; seeds shining, black.

Frequently planted along roads and in temple premises and gardens.

Flowering : April - May

Fruiting : August - September



Xantolis tomentosa (Roxb.) Rafin. (Syn: *Sideroxylon tomentosum* Roxb.)

Vernacular name : Kanta Baula, Kantabara (O).

Small evergreen trees, usually thorny; bark light brown. Branchlets rusty-tomentose or densely brown hairy. Leaves obovate or oblanceolate, margins wavy, obtuse or suddenly acute, tomentose beneath. Flowers white, small, solitary or fascicled, mostly from old leaf-scars. Berry yellowish, subglobose or broadly ovoid. Seed usually 1, deep brown.

Occasional, in low forests on sandstone hills and scrub forests.

Flowering : April - June

Fruiting : November - February



EBENACEAE

Diospyros ferrea (Willd.) Bakh.
[Syn: *Maba buxifolia* (Rottb.) A. L. Juss.]

Vernacular name: Guakoli, Gaurkasa, (O); Angaru (Beng.).

Much branched shrub or small tree; young shoots pubescent. Leaves alternate, obovate, oblong or round, obtuse, glabrous, coriaceous. Flowers white, small, 3-merous; male flowers smaller than the female, hairy, usually in very short cymes. Berry globose, yellow or reddish, glabrous, 1-seeded.

Frequent in scrub jungles and degraded forests.

Flowering : March - April

Fruiting : June - July



Diospyros malabarica (Desr.) Kostel.
(Syn: *Diospyros embryopteris* Pers.)

Vernacular name : Mankadakendu, Dhusara kendu, Kala kendu (O); Maka tendu, Kala tendu, (H); Makur kendi, Tendu (Beng).

Tree with low spreading branches; bark black. Leaves acute, subacute or obtuse, glabrous, shining above, base obtuse or rounded. Flowers white, fragrant; male flowers in umbellate cymes; female flowers solitary. Fruit globose, covered with deciduous red scurf. Seeds large, embedded in white endosperm.

Fairly abundant along streams and water bodies; also in damp forests.

Flowering : March - April.

Fruiting : Ripening following March-April



Diospyros montana Roxb.

Vernacular name: Halda, Kasakoli (O); Bangab (Beng.); Bis tendu, Lohari, Dasaunda (H).

Small or moderate-sized tree. Branchlets glabrous or rarely pubescent; sometimes armed with stout conical thorns. Leaves ovate oblong, elliptic or elliptic-ovate, acute. Male flowers green. Female flowers green or yellow, tube urceolate, limb spreading. Fruit greenish-yellow, finally black, globose-ovoid with short conical tip and with enlarged reflexed calyx..

Very common in low forests and near streams and water courses.

Flowering : April - June

Fruiting : November - March



Diospyros ovalifolia Wight.

Small tree. Leaves narrowly elliptic or oblong, apex rounded. Flowers sessile, clustered axillary and from leaf scars. Male flowers 3-12 together, campanulate; calyx tomentose, lobes spreading; corolla lobes short, ovate. Female flowers 1-2 together; corolla-lobes broadly ovate.. Fruit globose, subsessile, with reflexed calyx-lobes.

Occasional in forests on sandstone hills.

Flowering : May - June

Fruiting : October - January



Diospyros sylvatica Roxb.

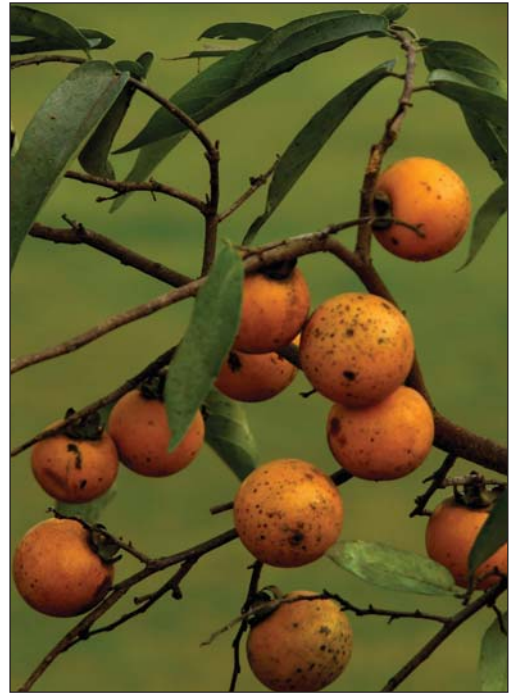
Vernacular name: Kalicha, Kalchua (O).

Small or medium-sized tree; bark dark grey. Leaves narrow-elliptic, elliptic-oblong or ovate-oblong, acute to acuminate. Male flowers very small 3-4-merous, in small, dense, peduncled cymes, axillary and from the scars of caducous scales. Female flowers white, extra-axillary. Fruit globose, glabrous, yellow-orange when ripe; crowned by enlarged reflexed calyx.

Fairly abundant in damp forests.

Flowering : April - July

Fruiting : September - March



OLEACEAE

Jasminum sambac (Linn.) Ait.

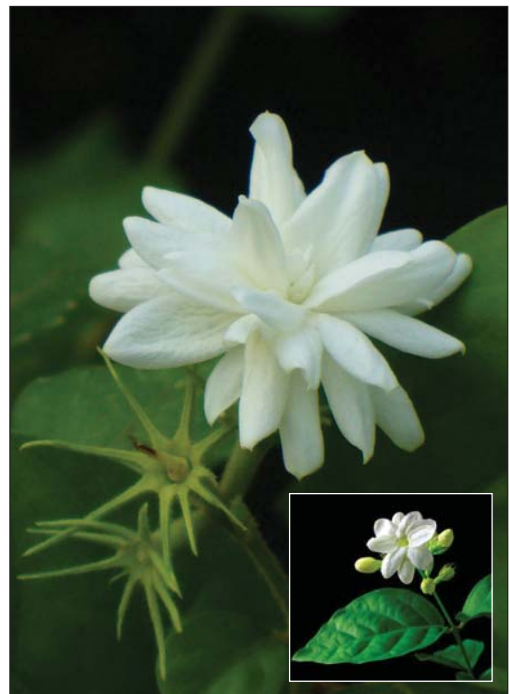
Vernacular name: Malli (O); Motia, Mogra (Beng.); Mallika, Moghra (H); Arabian Jasmine (E).

Scandent or sarmentose shrub; branches pale, whitish-grey. Leaves broadly ovate or ovate-lanceolate. Flowers fragrant, white, in 3-5 flowered terminal cymes; sepals 5-7, filiform, curled. Berry globose, dark violet when mature.

Frequently planted in gardens, homesteads and in hedges; also wild in scrub forests.

Flowering : March - May

Fruiting : June - July



Jasminum scandens Vahl.

Vernacular name : Banamalli (O).

Scandent shrub. Leaves ovate, or ovate-lanceolate, acuminate, glabrous, base rounded. Cymes dense, sub-capitate, axillary and terminating short lateral branches, 3-chotomous, branches 3-flowered; sepals subulate, pubescent, recurved; petals linear or linear-oblong, white, sweet-scented. Berry ellipsoid, black.

Frequent in hilly forests and scrub jungles.

Flowering : November - February

Fruiting : March - May



Nyctanthes arbor-tristis Linn.

Vernacular name : Gangasiuli, Singadahara (O); Harsingar (H, Beng.); Night Jasmine (E).

Small tree; branchlets 4-angular, often drooping. Leaves ovate, entire or coarsely toothed, acute or acuminate, puberulous, very scabrous. Flowers white with orange corolla tube, fragrant, night-flowering. Capsule elliptic or obovoid, compressed, glabrous. Seeds orbicular.

Commonly planted in gardens and temple premises; frequent in dry forests.

Flowering : September - October

Fruiting : December - January



APOCYNACEAE

Aganosma caryophyllata (Roxb. ex Sims.) G. Don [*Aganosma dichotoma* (Roth) K. Schum.]

Vernacular name: Malati (O, H, Beng.).

Large climber; young branchlets rusty-tomentose. Leaves ovate, elliptic, oblong or ovate-oblong, acute, obtuse or shortly acuminate, glabrous or tomentose beneath, base rounded or obtuse, 3-5-nerved. Cymes corymbose, lax; pubescent. Flowers fragrant, white, large. Follicles densely yellow-tomentose when young, spreading or recurved.

Occasional in forests; commonly grown in gardens.

Flowering : July - September

Fruiting : February - April



Alstonia scholaris (Linn.) R. Br.

Vernacular name : Chhatiana (O); Chhattin (Beng.); Chattim (H); Dita Bark (E).

Large tree with milky latex; branches often whorled; bark dark grey, lenticellate. Leaves 3-7, usually 6 in a whorl, obovate oblong, oblanceolate to obovate, glabrous, secondary nerves many. Inflorescence umbellately branched cymose panicle, peduncled or sessile. Flowers greenish-white or cream, fragrant. Follicles pendulous, terete, narrow.

Very common in forests; also planted along roads and gardens.

Flowering : November - January

Fruiting : May - September



Carissa inermis Vahl (Syn: *Carissa macrophylla* Wall. ex A. DC.)

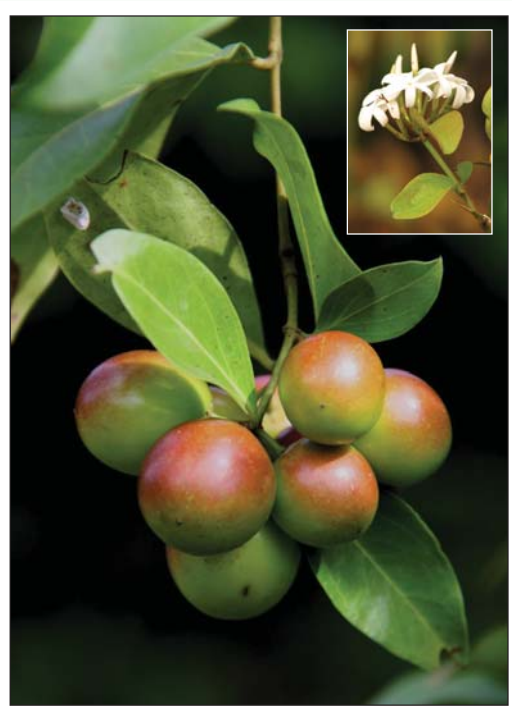
Vernacular name: Karanda, Kerenda (O).

Large woody climber; branchlets glabrous. Spines large, conical on the trunk and nearly straight or usually curved, divaricate. Leaves ovate or elliptic-ovate, acute to acuminate, scarcely mucronate, glabrous. Cymes contracted, terminal and axillary, 3-flowered or trichotomous. Flowers white. Berry globose or ellipsoid, dark purple, 4-seeded.

Very rare, in degraded lands of scrub forests.

Flowering : April - May

Fruiting : July - August



Carissa spinarum Linn.

Vernacular name : Ankhu-koli, Dudha koli; Khirakoli (O); Karonda, Karaunda (H).

Dwarf scandent shrub with milky latex. Branches subglabrous or pubescent; spines straight, simple or forked, divaricate. Leaves broadly ovate to oblong or suborbicular, acute or obtuse and apiculate. Flowers white, in close terminal or axillary, sessile or shortly pedicelled, often many-flowered cymes. Berry globose, ovoid or ellipsoid, 4-seeded, dark purple or black when ripe.

Quite gregarious in scrub jungles, open forests and sandy localities.

Flowering : Chiefly March-May.

Fruiting : October - December



Cascabela thevetia (Linn.) Lippold
[*Thevetia peruviana* (Pers.) Merr.;
Thevetia nerifolia Pers. ex Steud]

Vernacular name: Kaniar, Kaniari, Kaniar Phula (O); Kolka phul (Beng.); Yellow Oleander (E).

Small, evergreen tree, with milky latex. Leaves crowded towards the apex, alternate, linear or linear-lanceolate, margins revolute. Flowers funnel-shaped, yellow, white or mauve, in subterminal, 1-few-flowered cymes. Berry sub-globose, pericarp breaking into 2 valves; seeds large, barrel-shaped.

Commonly planted in gardens, temple premises and along roads; frequently run wild in forests and waste places.

Flowering : Through out the year.
& Fruiting



Catharanthus roseus (Linn.) G. Don
(Syn: *Vinca rosea* Linn.)

Vernacular name: Sadabihari (O); Sadabahar, Nayantara (H); Periwinkle (E).

Perennial herb or subshrub; latex milky. Leaves obovate, rounded at apex, glabrous, shining. Flowers salver-shaped, rose or white, axillary, solitary or paired, shortly pedicelled. Fruit of two half divaricate, slender, cylindric follicles; seeds numerous, testa muricate.

Cultivated; also thoroughly naturalized in waste places and near villages.

Flowering : All the year round.
& Fruiting



Ervatamia divaricata (Linn.) Burkill
[*Tabernaemontana divaricata* (Linn.) R.
Br. ex Roem. & Schult.;
Tabernaemontana coronaria (Jacq.)
Willd.]

Vernacular name: Tagara, Tarata (O);
Tagar (Beng.,H); East Indian Rosebay (E).

Shrub or small tree, with milky latex.
Leaves oblong-oblongate or elliptic-
oblong, unequal, acuminate or caudate,
glabrous, shining above. Flowers white,
fragrant, in axillary and terminal cymes;
corolla slender, tubular. Follicles
spreading and recurved, 3-7-ribbed, red
or orange inside.

Very commonly grown in gardens, parks,
temple premises and roadsides.

Flowering : Through out the year.
Fruiting : No fruiting in plains, bears
fruits in hills.



Holarrhena pubescens (Buch.-Ham.)
Wall. ex G. Don (Syn: *Holarrhena*
antidysenterica Wall. ex A. DC.)

Vernacular name : Pitakorua,
Pitakuruchi, Kuruchi, Indrajala (O);
Khurchi (H).

Large shrub or small tree, with milky
latex; bark thick, smooth. Leaves elliptic,
ovate or elliptic-oblong, acute to
acuminate, glabrous or pubescent, base
acute to obtuse or rounded. Flowers
white, fragrant, in terminal or axillary
corymbose cymes. Follicles slender,
divaricate, lenticellate.

Fairly abundant in waste places,
roadsides and forests.

Flowering : May - July
Fruiting : October - February



Ichnocarpus frutescens (Linn.) R. Br.

Vernacular name : Suamanai, Suannati, Dudhi lata (O, H, Beng.); Shyamalata (Beng.).

Large climbing shrub, with milky latex. Branches rusty-pubescent or rusty-tomentose. Leaves lanceolate-oblong, oblong, elliptic or broadly oblong, acute to acuminate, glabrous. Flowers white, fragrant, small. Follicles linear, divaricate, slightly flattened, densely rusty-pubescent when young or glabrescent when mature.

Very common climber in hedges, bushes and forest thickets.

Flowering : September - December

Fruiting : January - April



Nerium oleander Linn. (Syn: *Nerium indicum* Mill.)

Vernacular name: Karabira, Karabi (O); Karabi (Beng.); Kaner (O,H); Indian Oleander, Sweet scented Oleander (E).

Shrub with milky latex, branches erect. Leaves linear, acute at both ends, glabrous, secondary nerves many, close, regularly parallel. Flowers white or usually rose, fragrant, in terminal cymes. Follicles long, cylindric.

Common garden ornamental, sometimes with variegated leaves and dwarf habit.

Flowering : All the year round.

& Fruiting



Plumeria rubra Linn. (Syn: *Plumeria acutifolia* Poir.)

Vernacular name : Katha champa, Debakanchan (O); Gogur champa (Beng.); Gobur champa (H); Temple or Pagoda tree (E).

Small tree, with white latex. Leaves oblanceolate, obovate-oblong or oblong, acute or obtuse, mid-rib thick, secondary nerves parallel. Flowers white or red, with a yellow centre, fragrant, in short umbellately divided cymes, on a long peduncle.

Commonly planted in gardens and temple premises.

Flowering : Most part of the year.
& Fruiting



Rauvolfia serpentina (Linn.) Benth. ex Kurz

Vernacular name: Patal Garuda, Sarpagandha (O); Chandra (Beng.); Sarpagandha (H); Rauvolfia, Serpentine (E).

Glabrous undershrub. Leaves 3-4-nately whorled and opposite, elliptic-oblong, oblong, oblanceolate, acute to acuminate, glabrous, bright green and shining above, often paler beneath. Flowers small, white with pink tube, in terminal, peduncled bright red cymes. Drupes black when ripe, globose.

Occasional in forests; often grown in gardens.

Flowering : May - November
& Fruiting



Rauvolfia tetraphylla Linn. (Syn: *Rauvolfia canescens* Linn.)

Spreading, dichotomously branched shrub; branches pubescent. Leaves 3-4-nately whorled, usually in two unequal pairs in a whorl, elliptic, elliptic-oblong or elliptic-obovate, acute, softly pubescent. Flowers white, small, in 3-7-flowered, axillary or terminal corymbs. Drupes globose, red, 1-seeded.

Cultivated in gardens; very often wild in forests and roadsides as an escape.

Flowering : Most part of the year.
& Fruiting



Wrightia arborea (Dennst.)
Mabberley (Syn: *Wrightia tomentosa*
Roem. & Schult.)

Vernacular name: Bada kurei, Bada koruan,(O); Dudh koraiya (Beng.); Dudhi, Dhaira (H).

Small tree; branches slender, pubescent; bark light grey, rough with lenticels. Leaves distichous, elliptic, shortly acuminate or caudate-acuminate, tomentose. Flowers greenish-orange or cream. Follicles connate throughout into a grooved cylinder, greenish, rough with white tubercles. Seeds slender with white coma.

Occasional, in dry hilly forests.

Flowering : April - July
Fruiting : December - February



Wrightia tinctoria (Roxb.) R. Br.

Vernacular name: Dudha Koruan, Pita Koruan (O); Indrajau (Beng., H).

Small tree, with milky juice; bark light grey. Leaves sub-sessile, ovate, elliptic, elliptic-oblong, pubescent. Flowers white, in pubescent cymes; corona-scales fimbriate into linear segments; anthers yellow. Follicles curved, lenticellate, cohering at the tip until nearly ripe.

Occasional in dry mixed forests; sometimes planted in gardens.

Flowering : March - May

Fruiting : December - January



PERIPLOCACEAE

Cryptolepis buchananii Roem. & Schult.

Vernacular name : Gopkanhu, Gopakana, Dudhi (O); Karanta (H).

Large twinner with copious milky juice. Bark brown on old stems, peeling off in thin strips. Leaves oblong or elliptic, obtuse, rounded, often apiculate at apex, glabrous, shining above, pale-glaucous beneath, main nerves parallel. Flowers yellow, in lax, paniced cymes. Follicles poniard-shaped, 5-10 cm long.

Frequent in open forests and scrub jungles.

Flowering : April - June

Fruiting : December - February



Hemidesmus indicus (Linn.) R.Br.

Vernacular name : AnantamuI (O, Beng., H), Indian Sarsaparilla (E).

Slender twiner, with milky latex. Leaves linear, oblong, ovate oblong, broadly elliptic or rarely obovate or lanceolate, acute, obtuse or apiculate, glabrous or pubescent, pale beneath. Flowers green outside and purplish-brown within. Follicles spreading in fruit, slender, cylindric, gradually narrowed towards tip.

Fairly abundant in scrub forests, hedges, waste places and cultivated fields.

Flowering : August - December

Fruiting : December - February



ASCLEPIADACEAE

Calotropis gigantea R.Br

Vernacular name : Arka, Arakha (O); Akanda (Beng.); Akond, Akona (H).

Stout hoary-tomentose shrub, with milky latex. Leaves subsessile, obovate or obovate-oblong, obtuse, base cordate often amplexicaul. Flowers in umbellate, lateral paniculate cymes. Corolla bluish-purple, lobes spreading, revolute and twisted when old. Corona processes with their bases elegantly curved; top of column 5-angled. Follicles recurved, obtuse.

Quite common in waste places, sandy localities and other dry habitats.

Flowering : December - July

Fruiting : February - June



Ceropegia candelabrum Linn. (Syn: *Ceropegia tuberosa* Roxb.)

Glabrous twiner with tuberous roots. Leaves broadly ovate or elliptic, apiculate, glabrous, base rounded. Flowers few, in umbels; corolla pale green or yellowish-green with brown stripes within, puberulous, inflated at base, beaked in bud, with long hairs at the neck; corona near top of column, shallowly cupular. Follicles slender.

Very rare, in hedges and thickets.

Flowering : September - October

Fruiting : December - February



Gymnema sylvestre (Retz.) R. Br.

Vernacular name : Gudamari (O); Mera-singi (O, H); Mesa singi (Beng.); Gurmar (H).

Large hirsute climber, young parts brown-tomentose. Leaves ovate, broadly elliptic or oblong, acute or sub-acute, pubescent on nerves beneath, base rounded or cordate. Flowers minute, in hairy peduncled umbelliform cymes, yellow. Follicles usually solitary, broader near the base, tapering from base to tip.

Fairly common in scrub forests, thickets, hedges and also planted in gardens.

Flowering : August - October

Fruiting : January - March



Pergularia daemia (Forssk.) Chiov.
[Syn: *Daemia extensa* (Jacq.) R. Br.;
Pergularia extensa (Jacq.) N. E. Br.]

Vernacular name : Uturudi, Iturudi (O);
Chagulbati (Beng.), Sagovani, Jutuk (H).

Slender, hispidly hairy climber; with milky latex. Leaves broadly orbicular or broadly ovate, acuminate or caudate, membranous, pubescent beneath, deeply and broadly cordate. Flowers green or yellowish-green and red, in long-peduncled, sometimes paniced, drooping corymbs. Follicles lanceolate, softly echinate, tapering to a long beak.

Gregarious in hedges, thickets and scrub forests.

Flowering : August - December

Fruiting : January - April



Sarcostemma acidum (Roxb.) Voigt
(Syn : *Sarcostemma brevistigma* Wt. &
Arn.)

Vernacular name: Lata siju; Somalata (O);
Somlata (Beng., H)

Leafless, succulent jointed shrub with milky latex; branches green, terete, straggling. Flowers white or creamish-white, waxy, fragrant, in terminal umbels; corolla with revolute margins. Follicles diverging, thinly coriaceous, narrowed to the base.

Occasional in drier areas, rock crevices and barren rocks.

Flowering : September - January
& Fruiting



Tylophora indica (Burm. f.) Merr.
[Syn: *Tylophora asthamatica* (Linn.f.)
Wt. & Arn.]

Vernacular name : Swasamari,
Mendhisaga, Anantamula (O);
Anathamul (Beng.); Jangli Pikran (H).

Twiner, pubescent on stems; juice watery
Leaves ovate-elliptic or ovate-oblong,
apiculate, base rounded, truncate, cordate
or sub-cordate. Flowers small, greenish-
yellow, tinged with purple within;
pedicels long, filiform. Follicles 2,
lanceolate, smooth, produced to a slender
acute beak.

Fairly common in sandy localities and in
bushes and hedges.

Flowering : September - November

Fruiting : December- February.



LOGANIACEAE

Strychnos nux-vomica Linn.

Vernacular name: Kochila (O, Beng.);
Kuchla (H); Nux-vomica, Strychnine tree
(E).

Tree, bark smooth, grey. Leaves ovate or
sub-orbicular, acute, obtuse or rounded,
shining, glabrous, with 3 strong and 2
weaker nerves from close to the base; base
rounded or suddenly acute. Flowers
white or greenish-white, throat glabrous.
Berry bright orange, globose; seeds
discoid, depressed in the centre,
embedded in white pulp.

Common in lateritic soils, sandstone hills
and scrub forests.

Flowering : March - April

Fruiting : December - January



Strychnos potatorum Linn.

Vernacular name: Katakal (O); Nirmali (O, Beng.,H); Clearing nut tree (E).

Small densely branched tree; bark blackish, cracked. Leaves elliptic or ovate, usually acute or subacute, glabrous, with usually 2 strong secondary nerves each side. Flowers white, fragrant, in dense glabrous cymes, mostly in the axis of fallen leaves. Berry globose, large, 1-2, thickly lenticular.

Occasional, in dry forests; also planted in gardens.

Flowering : May

Fruiting : October - December



GENTIANACEAE

Canscora diffusa (Vahl) R. Br. [Syn: *Canscora diffusa* (Vahl) R. Br. var. *tenella* C. B. Clarke

Vernacular name: Bururia

Erect herbs, repeatedly dichotomously branched; stems 4-angled, branchlets slender, with a pair of sessile leaves or bract at each fork. Leaves sessile, ovate or ovate-oblong. Flowers small, pink, on capillary pedicels, 4-angled. Capsule cylindric, membranous, septically 2-valved.

Fairly common in moist and shady localities, field bunds and close to wetlands.

Flowering : August - February
& Fruiting



MENYANTHACEAE

Nymphoides hydrophylla (Lour.) Kuntze [Syn: *Nymphoides cristata* (Roxb.) Kuntze; *Limnanthemum cristatum* (Roxb.) Griseb.]

Vernacular name: Panisiuli (O); Chand-malla (Beng.); Tagarmul, Ghainchu (H).

Perennial aquatic herb. petioloid stems long, filiform. Leaves floating, elliptic to orbicular, faintly crenate, pale green above, purplish and prominently nerved beneath, base deeply cordate. Flowers white, yellow at the centre, on slender pedicels rising one by one above the water to open. Fruit capsular, 2-4 valved; seeds tuberculate.

Quite gregarious on water surface of ponds, lakes, rice fields and other stagnant water bodies.

Fl. & Frt. : Most part of the year.

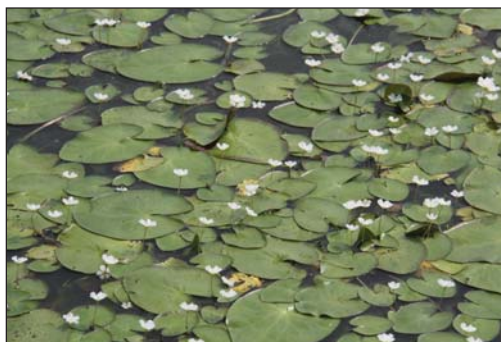
Nymphoides indica (Linn.) Kuntze. [Syn: *Limnanthemum indicum* (Linn.) Griseb.]

Vernacular name: Panisiuli, Bada Panisiuli (O), Chand malla (Beng.); Barachuli (H).

Perennial, rhizomatous aquatic herb. Leaves floating, rather fleshy, light green above, orbicular, margin sinuate, smooth above, verrucose and glandless beneath, palmately nerved, base deeply cordate. Flowers white, in dense, sessile umbels at the nodes on long pedicels; corolla white, yellow in the center; lobes fimbriate on the margins. Fruit a capsule; seeds smooth.

Common in tanks, ponds and lakes.

Flowering : Most part of the year.
& Fruiting



HYDROPHYLLACEAE

Hydrolea zeylanica (Linn.) Vahl

Vernacular name: Nilatara, Ballubalua (O); Isha-Iangulia (Beng.).

Erect or diffuse sub-succulent herb, often rooting at the nodes. Leaves shortly petioled, linear, lanceolate or oblanceolate, acute or acuminate, upper gradually smaller. Inflorescence glandular-hairy or pubescent, cymose, at the ends of short lateral branches and terminal. Flowers blue. Capsule ovoid-ellipsoid.

Very common in rice fields, ditches and wet places.

Flowering : November - April
& Fruiting



EHRETIACEAE

Cordia obliqua Willd. (Syn: *Cordia myxa* auct. non. Linn.; *Cordia dictotoma* auct. non. Forst. f.)

Vernacular name: Guala, Dhuala, Guala koli (O); Lasora (H, Beng.).

Small tree, with drooping branches. Leaves orbicular or elliptic-oblong, entire, remotely dentate or sinuate. Flowers white, fragrant; calyx funnel-shaped, accrescent, campanulate to saucer-shaped in fruit. Drupe conical when young, ovoid when ripe, yellowish or pinkish, glossy, with very viscous 1-seeded pulp.

Frequent in dry forests and scrub jungles; also planted near villages.

Flowering : March - April
Fruiting : July - September



Ehretia laevis Roxb.

Vernacular name: Masania, Jhadapana (O); Tamboli (Beng.); Dantranga, Darar (H).

Small or medium-sized tree; bark white or pale grey: Leaves ovate or ovate-oblong, broadly or narrowly elliptic, shining and glabrous above. Flowers white, sessile or pedicelled, in dichotomous scorpioid cymes, usually borne laterally on the bare branches. Drupe orange or black when ripe, subglobose, with 1-4 pyrenes.

Commonly found in dry forests and scrub jungles on sandstone hills.

Flowering : January - March

Fruiting : April - May



BORAGINACEAE

Coldenia procumbens Linn.

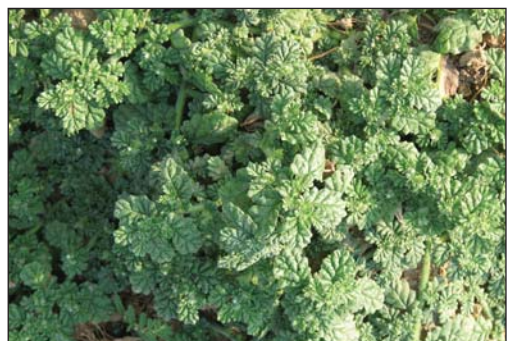
Vernacular name : Hansapadi, Gandharilata (O); Tripungki (H).

Prostrate, scabrid hairy herb. Leaves obovate, elliptic-obovate, coarsely serrate or lobulate, apex obtuse or rounded, densely scabrous or hispid above, sometimes white-glandular-pubescent along the nerves. Flowers white, very small. Drupe pyramidal, tipped with the hardened bipartite style.

Abundant and often forming thick mat in wet places, drying up rice fields and ditches.

Flowering : January - April

& Fruiting : Most part of the year in suitable habitats.



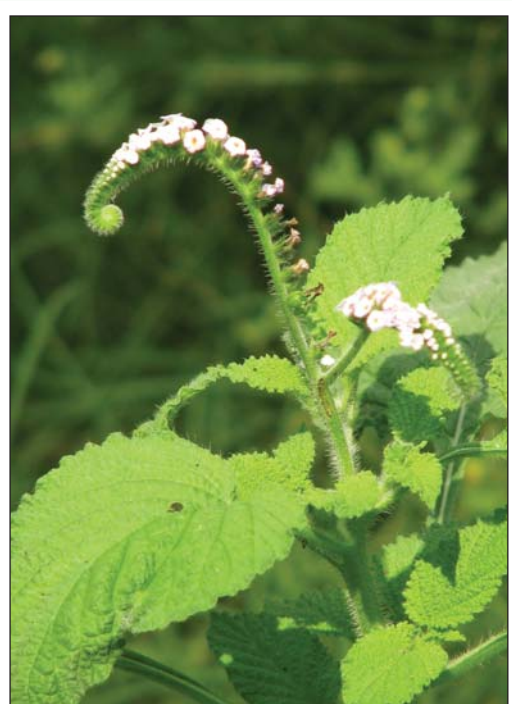
Heliotropium indicum Linn.

Vernacular name : Hatisundha (O); Hatisura (O, Beng.,H).

Erect, coarse, hispid annual herb. Leaves alternate, sometimes sub-opposite, ovate or ovate-oblong, margin undulate, apex acute or obtuse, rugose above with a few hairs, secondary nerves strong beneath. Flowers white or lilac, in elongate, usually simple, ebracteate, often circinate spikes. Fruit dry, indehiscent; nutlets in pairs.

One of the most common weeds in waste places, agricultural fields and gardens.

Flowering : Most part of the year
& Fruiting in suitable habitats.



Heliotropium strigosum Willd. ssp. *brevifolium* (Wall.) Kazmi

Erect or prostrate, tufted herb. Stems strigosely hairy. Leaves elliptic or ovate-lanceolate, pubescent, base obtuse, apex acute. Flowers white, with yellow throat, in short, softly hirsute or villous, one-sided spikes; sepals acute. Nutlets ovoid, shorter than the persistent sepals, dark grey brown, hispid above.

Rare, in marshy grounds and banks of lake.

Flowering : February - May
& Fruiting



CONVOLVULACEAE

Argyrea nervosa (Burm.f.) Boj.
(Syn: *Argyrea speciosa* Sweet)

Vernacular name : Budhadaraka (Beng.,O); Somandar-ka-pat (H); Elephant creeper (E).

Stout climber with woody stems; new shoots densely white-tomentose. Leaves broadly ovate, apex rounded or obtusely acute, mucronulate, densely white sericeo-tomentose beneath, glabrous above. Flowers pink, in very long-peduncled, many-flowered, subcapitate cymes. Fruit globose.

Occasional in forests; often planted in gardens as a medicinal plant.

Flowering : July - September

Fruiting : November - April



Ericybe paniculata Roxb.

Vernacular name: Durkoli, Joda Koli (O).

Climbing shrub, young branches rusty-tomentose. Leaves obovate, oblanceolate or oblong, tomentose when young, shining and glabrous when mature. Flowers light yellow, yellowish-white or cream-coloured; in narrow, terminal, rusty-tomentose panicles. Fruits oblong-obovoid, black, sweet and edible.

Occasional in shady moist localities of sandstone hills.

Flowering : May - June

Fruiting : March - June (of following year)



Evolvulus alsinoides (Linn.) Linn.

Vernacular name: Sankhapuspi (O, H).

Trailing or prostrate herb. Branches densely silky. Leaves subsessile or shortly petioled, linear to broadly elliptic, obtuse or acute at both ends, densely appressed hairy on both sides or silky beneath. Flowers blue or bluish-white. Capsule globose.

Very common in open grassy places, wastelands, roadsides and scrub forests.

Flowering : July - February
& Fruiting



Evolvulus nummularius (Linn.) Linn.

Vernacular name: Bichhamalia (O).

Prostrate or procumbent herb with trailing branches, rooting at nodes. Leaves orbicular or broadly ovate, rounded at apex, glabrous. Flowers white, solitary, axillary; corolla saucer-shaped, very thinly pubescent outside. Capsule sub-globose, 2-seeded.

One of the commonest weed species in moist waste places, agricultural fields, road sides and gardens.

Flowering : Through out the year
& Fruiting



Ipomoea aquatica Forssk. (Syn: *Ipomoea reptans* Poir.)

Vernacular name: Kalama, Kalama saga (O); Kalami (H, Beng.); Swamp Cabbage (E).

Aquatic or semi-aquatic herb. Stems mostly thick, fistular or spongy, rooting at the nodes, trailing on moist mud or floating on water. Leaves ovate-triangular, ovate-oblong, lanceolate, elliptic-oblong or ovate, glabrous, hastate or cordate. Flowers pink, purple or rarely white, axillary, solitary or in 2-3 flowered peduncled cymes. Capsule ovoid.

Gregarious as a floating plant in lakes, ponds and ditches; also in muddy places and rice fields. The leaves are used as a leafy vegetable.

Flowering : November - February.
& Fruiting



Ipomoea cairica (Linn.) Sweet (Syn: *Ipomoea palmata* Forssk.)

Large climber; old stem and branches lenticellate. Leaves ovate to orbicular, deeply palmately 3-7 lobed; lobes elliptic or oblanceolate. Flowers unnel-shaped with spreading corolla, purple or purple-blue, solitary axillary or 1-3 in axillary peduncles. Capsule ovoid, 2-celled, 2-4 valved; seeds pubescent.

Frequent in gardens and hedges; naturalised at suitable locations.

Flowering : Through out the year.
& Fruiting



Ipomoea carnea Jacq. ssp. *fistulosa*
(Mart. ex Choisy) Austin (Syn:
Ipomoea fistulosa Mart. ex Choisy)

Vernacular name: Amari, Gachha Kalama
(O).

Shrub, erect or ascending; branches thick, fistulose or solid with milky sap. Leaves ovate or ovate-oblong, acuminate, glabrous or puberulous. Flowers funnel-shaped, purple or dark purple towards the base; calyx with nectaries between the sepal-bases; corolla tube puberulous. Fruits ovoid, 4-valved, with persistent calyx.

Very common and gregarious in shallow water bodies, banks of lakes, ponds, canals, moist places and road sides; usually grown as a hedge plant.

Flowering : All the year round.
& Fruiting



Ipomoea hederifolia Linn. [Syn:
Quamoclit coccinea Moench., *Quamoclit phoenicea* (Roxb.) Choisy]

Vernacular name: Panikoda (O).

Herbaceous climber. Stems and branches puberulous. Leaves ovate or broadly ovate, margin entire, angular, coarsely dentate, rarely lobed, acute or acuminate, glabrous, cordate. Flowers salver-shaped, scarlet, solitary or in few-several-flowered cymes. Capsule ovoid to sub-globose.

Frequent in hedges, scrub jungles and humid forests.

Flowering : September - January
& Fruiting



Ipomoea nil (Linn.) Roth [Syn: *Ipomoea hederacea* auct. non (Linn.) Jacq.]

Vernacular name : Nila Kalama, Khami khondo (O); Nil kalmi, Kaladanah (Beng., H).

Hairy twiner; stems retrorsely hirsute. Leaves ovate, 3-lobed, pubescent, base cordate; lobes broadly ovate or oblong, very acuminate. Flowers bluish-purple or pinkish-purple, sub-umbellate on 1-5-flowered, axillary peduncles; corolla funnel-shaped. Capsule subglobose, glabrous.

Occasional in hedges, bushes and open places; also common in damp forests.

Flowering : September - November

Fruiting : December - February



Ipomoea pes-tigridis Linn.

Vernacular name : Bileipada, Bileipanjha (O); Languli lata (Beng.).

Herbaceous twiner, fulvous hairy or hirsute with patent hairs all over. Leaves orbicular, hairy with appressed or patent hairs, deeply lobed. Flowers in long peduncled heads, with large persistent bracts; corolla white or light pink, funnel-shaped with spreading limb. Capsule ovoid, papery, glabrous.

Quite gregarious in open waste places, agricultural fields and forests during post-monsoon periods.

Flowering : August - December
& Fruiting



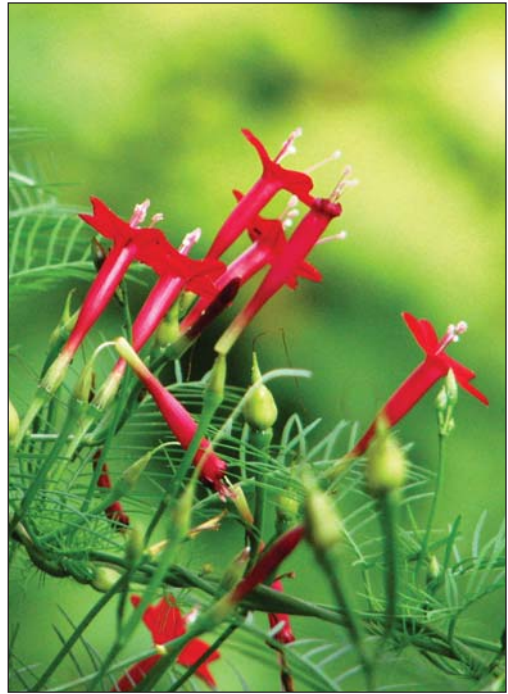
Ipomoea quamoclit Linn. (Syn: *Quamoclit pinnata* Boj.)

Vernacular name : Kunjalata (O).

Annual slender twiner. Leaves ovate or oblong in outline, pinnatipartite to the mid-rib, with 8-12 pairs of linear patent segments. Flowers red, salver-shaped, in axillary, 1-few-flowered cymes; stamens and styles exserted. Capsule ovoid, 4-celled, with 4 longitudinally splitting valves.

Commonly found in hedges and bushes close to villages, sometimes grown in gardens.

Flowering : October - February
& Fruiting



Ipomoea sepiaria Koenig ex Roxb. [Syn: *Ipomoea maxima* auct. non. (Linn.) Sweet]

Vernacular name: Mushakani, Lata Kalama (O); Ban Kalmi (Beng.,H).

Herbaceous, perennial twiner. Branches sometimes pilose. Leaves ovate or triangular, acute, acuminate or shortly caudate, glabrous or puberulous, cordate or hastate. Flowers light purple or white with deep purple centre, axillary, in sub-umbellate cymes; corolla salver-shaped. Capsule ovoid, 4-2-seeded.

Abundant in open forests, village thickets, bushes and hedges.

Flowering : October - April
& Fruiting



Jacquemontia paniculata (Burm. f.)
Hall.f. (Syn: *Convolvulus paniculatus*
Haines)

Slender twiner, more or less pubescent all over. Leaves ovate, finely acuminate or acute and apiculate, pubescent, base shallowly cordate or truncate. Flowers small, white or pinkish-white, in axillary, 2-5- flowered peduncled cymes. Capsules globose, glabrous.

Rarely found in scrub forests and wastelands.

Flowering : December - April
& Fruiting



Merremia hederacea (Burm.f.) Hall. f.
(Syn: *Ipomoea chryseides* Ker-Gawl.)

Slender glabrous twiner. Stems angled, hairy at the nodes. Leaves ovate, entire, repand-dentate to shallowly 3-lobed, acute, acuminate, obtuse or mucronulate, upper surface sparsely hairy, lower paler, glabrous, base cordate. Flowers yellow, in forked, axillary, short to very long-peduncled, 3-7-flowered cymes. Capsule sub-globose.

Abundant in areas close to water bodies, often straggling among bushes on banks of lakes and ponds.

Flowering : September - April
& Fruiting



Merremia tridentata (Linn.) Hall. f.
subsp. *tridentata*

Prostrate herb with numerous stems, woody rootstock. Leaves sessile or subsessile, linear-oblong, often hastate or lyrate, apex obtuse, broadly truncate, emarginate or sometimes acute, apiculate or with 2-3 teeth; base hastate and often with several spinulose teeth. Flowers creamish-white or light yellowish, 1-3 on a slender peduncle. Capsule subglobose, 2-4-seeded.

Common in open places and grassy fields.

Flowering : July - April
& Fruiting



Merremia tridentata (Linn.) Hall. f.
subsp. *hastata* (Hall.f.) Ooststr. (Syn:
Ipomoea hastata Haines)

Twining glabrous herb. Leaves narrow-oblong, linear-oblong or linear, entire except the basal portion, acute, sometimes mucronate, glabrous. Flowers in 1-flowered pedunculate cymes; corolla light yellow or cream, with dark purple light center, funnel-shaped, glabrous. Capsule subglobose, 4-2-seeded.

Fairly common in thickets, hedges and also in open fields.

Flowering : August - March
& Fruiting



Merremia umbellata (Linn.) Hall. f.
[Syn: *Ipomoea cymosa* (Desr.) Roem. & Schult.]

Vernacular name: Paninai (O);
Sapoussundu (Beng.).

Climbers. Stem prostrate and rooting at the nodes or sometimes slightly angular. Leaves ovate-oblong, oblong, elliptic or lanceolate, more or less acuminate, glabrous or puberulous above. Flowers white or cream, funnel-shaped, in axillary, 2-several-flowered, peduncled cymes. Capsule globose, glabrous; seeds hairy.

Gregarious in scrub jungles, mixed forests and damp places.

Flowering : January - April.
& Fruiting



Merremia vitifolia (Burm.f.) Hall. f.
[Syn: *Ipomoea vitifolia* (Burm.f.) Bl.]

Twiner, patently hirsute all over, stem reddish. Leaves suborbicular or broadly ovate, palmately 5-7-lobed, hairy, palmately nerved with 5-7-basal nerves. Flowers bright yellow, funnel-shaped, in 1-7-flowered, peduncled, axillary cymes. Capsule subglobose, usually 4-seeded.

Occasional in scrub forests and hedges.

Flowering : July - April
& Fruiting



CUSCUTACEAE

Cuscuta reflexa Roxb.

Vernacular name : Nirmuli, Mari (O); Angusi lata (Beng.); Amarbel, Akasbel (H).

Parasitic herb. Stem yellowish-green or yellow, often in dense masses with pendulous branches. Flowers white or yellowish, solitary and in few-many-flowered, racemiform cymes with bracteate pedicels or flowers sessile. Ripe fruits fleshy, globose-conical, 1-4-seeded.

Fairly abundant and gregarious in a range of host plants.

Flowering : October - December

Fruiting : December - January



SOLANACEAE

Datura stramonium Linn.

Vernacular name: Duddura, Dhatura (O, Beng.,H); Thorn Apple, Stramonium (E).

Undershrub, stem green or purple. Leaves elliptic or ovate, sinuate or lobulate, with large triangular teeth, glabrous, somewhat hispidulous on the nerves beneath. Flowers large, funnel-shaped, white or purple, sub-erect; corolla limb plaited. Capsule erect, ovoid, 4-celled, with very sharp spines; seeds black.

Common in waste places and road sides; also in agricultural fields.

Flowering : Most part of the year.
& Fruiting



Nicotiana plumbaginifolia Viv.

Vernacular name : Hemaraj (O); Bantamaku (Beng.).

Scabridly hairy herb. Leaves radical and cauline, entire; basal ones few, spreading, obovate-spatulate or elliptic ovate, large, subobtusate, glabrescent; cauline leaves oblong-lanceolate, sessile or semi amplexicaul, acute, hairy. Flowers very slender, white or greenish-white, in terminal, sub-paniculate racemes. Capsule ovate, minutely rugose.

Locally gregarious in moist shady places, banks of lakes and ponds.

Flowering : April - September
& Fruiting



Physalis minima Linn.

Vernacular name: Tipai, Tiparia (O); Bantipariya (Beng.); Tulati pati (H).

Erect herbs; stem puberulous. Leaves ovate, coarsely toothed, sinuate or lobulate, membranous, acuminate or acute. Flowers cupular, yellow, often with purplish brown spots at the base within. Fruit a globose berry, enveloped in the bladder-like calyx.

A common weed of waste places and grassy fields.

Flowering : August - January
& Fruiting



Solanum nigrum Linn.

Vernacular name : Nunununia, (O); Kakmachi (Beng.); Makoi (H); Black night-shade (E).

Erect branched herb. Branches often with raised lines. Leaves ovate, lanceolate-ovate or oblong, entire, sinuate, sometimes toothed or lobed, acute, glabrous or puberulous. Flowers small, white, in sub-umbellate extra axillary peduncles; pedicels deflexed in fruit. Berry black, globose.

Fairly common as a weed in waste places, road sides and agricultural fields.

Flowering : Most part of the year.
& Fruiting



Solanum torvum Sw.

Vernacular name : Dengabheji, Bhejibaigan (O); Gota Begun (Beng.).

Shrub, stellate-tomentose; branches prickly. Leaves ovate or oblong, sinuate or coarsely lobed, acute or acuminate, with out prickles, stellate-tomentose beneath. Flowers white, in dense bifurcate cymes. Berry globose, yellow, turning orange, on clavate pedicels.

Common in moist shady places.

Flowering : Through out the year.
& Fruiting



Solanum virginianum Linn. (Syn: *Solanum xanthocarpum* Schrad. & Wendl.)

Vernacular name: Ankaranti, Bejari (O); Kanta kari (Beng.); Kateli, Ringani (H).

Diffuse herb; copiously armed with straight, yellow, sharp prickles; young parts stellate-tomentose. Leaves ovate, oblong or elliptic, lacerate with the lobes or segments. Flowers deep blue or violet, in extra-axillary cymes. Berry yellow or white, blotched with green, globose,.

Frequently occur along roads, wastelands especially in sandy soils.

Flowering : All the year round.
& Fruiting



Withania somnifera (Linn.) Dunal

Vernacular name : Ashwagandha (H,O, Beng.).

Erect shrub or undershrub; branches hoary-tomentose. Leaves ovate, entire, acute to obtuse, pubescent or glabrescent, base shortly cuneate. Flowers yellowish, shortly pedicelled, fascicled in the leaf-axils. Berry globose, enclosed in the inflated, accrescent, membranous calyx with narrow mouth.

Planted in the gardens as a medicinal plant; quite often run wild as an escape.

Flowering : October - May
& Fruiting



SCROPHULARIACEAE

Adenosma indianum (Lour.) Merr.
[Syn: *Adenosma capitatum* (Benth.)
Hence]

Erect, glandular-pubescent herbs; branches opposite and decussate. Leaves elliptic, obovate or oblong-ovate, serrate, subacute or obtuse. Flowers blue, in dense cylindric or ovoid, terminal or axillary, long-peduncled bracteate heads; heads with an involucre of leafy bracts. Capsule narrow ovoid, thinly coriaceous, dehiscent.

Fairly common in open grasslands and in the crevices of rocks.

Flowering : September - November

Fruiting : December - January



Angelonia angustifolia Benth.

Vernacular Name: Angel flower, Narrow leaf Snapdragon (E).

Erect perennial, glandular pubescent herb. Stem erect, branching from base. Leaves linear-oblong, glandular-pubescent, with distantly toothed margins and pointed tips. Flowers solitary, axillary, long-pedicelled, rose lilac to violet to blue, borne in slender upright spikes, up to 45 cm long; petals oblanceolate, small; corolla cupular, lobes 5, lower deflexed; stamens 4, inserted below the upper 2 corolla-lobes.

Planted in gardens; naturalized and gregarious in moist localities and lake banks as an escape.

Flowering : August - February
& Fruiting



***Bacopa monnieri* (Linn.) Pennell**
[Syn: *Herpestis monnieri* (Linn.) Kunth]

Vernacular name : Brahmi (O, H);
Panikundi (O); Brahmi-sak (Beng.).

Creeping, sub-succulent herb. Leaves sessile, narrowly obovate-oblong or spatulate, entire, obtuse; nerves obscure. Flowers solitary, axillary, purplish-white, bluish or pink, broadly campanulate; bracteoles linear, shorter than the calyx. Capsule ovoid, acute, included in calyx.

Locally gregarious in wet places, banks of water bodies and canals.

Flowering : April - December
& Fruiting



***Centranthera tranquebarica* (Spreng.)**
Merr. (Syn: *Centranthera hemifusa*
Wall. ex Benth.)

Erect or diffuse herb, branched from the base, glabrous or nearly so. Leaves sessile, linear, acute or subacute, glabrous, scabrid or hispidulous. Flowers axillary, solitary, sub-sessile, yellow, with purple markings in the throat, tubular, dilated above. Capsule subglobose, tipped with persistent style.

Occasional in swampy places and rice fields.

Flowering : August - November
& Fruiting



Dopatrium junceum (Roxb.) Buch.-Ham. ex Benth.

Erect, slender, glabrous herb. Stem succulent, striate. Lower leaves small opposite, in distant pairs, sessile, oblong, elliptic-oblong or oblanceolate, obtuse or subacute, parallel-nerved, the upper ones reduced to bracts. Flowers small, pink or violet; corolla glandular-pubescent. Capsule brown, glabrous, grooved over the top.

Not common, found in swamps, rice fields and banks of lakes.

Flowering : September - October

Fruiting : October - November



Limnophila heterophylla (Roxb.) Benth.

Vernacular name: Ambakasia (O).

Erect aromatic, herb, decumbent below; stems glabrous. Lower leaves capillary multifid; intermediate leaves 4-6 in a whorl, pinnatifid; upper leaves usually opposite, sessile semi-amplexicaul, oblong, serrulate, acute. Flowers purplish or bluish, sessile or subsessile, solitary axillary, more often spicate. Capsule broadly ellipsoid.

Gregarious in shallow ditches, swamps, rice fields and in stagnant water.

Flowering : August - November.

& Fruiting



***Limnophila indica* (Linn.) Druce**
(Syn: *Limnophila gratioloides* R. Br.)

Vernacular name: Keralata, Ambakasia
(O): Karpur (Beng.); Kura (H).

Small marsh herb, glandular-pubescent all over or glabrous. Leaves pinnatifid, whorled, upper ones 3-fid; uppermost rarely undivided, lower capillary multifid, submerged ones much longer, multifid. Flowers white or pale purple, pedicelled, axillary. Capsule ob-ovoid.

Very common in the borders of lakes, ponds, ditches and in flooded paddy fields.

Flowering : September - February
& Fruiting



***Limnophila repens* (Benth) Benth.**
(Syn: *Limnophila conferta* Benth.)

Glabrous aromatic herb, diffuse, variable in size. Leaves opposite, sessile or subsessile, ovate, obovate, elliptic-lanceolate or elliptic-oblong, serrate or crenate-serrate, acute, subacute or obtuse, conspicuously punctate beneath. Flowers purple, shortly pedicelled, solitary, axillary. Capsule ovoid or ellipsoid, membranous.

Fairly abundant in wet places and paddy fields; often after crop harvest.

Flowering : November - February
& Fruiting



Lindernia anagallis (Burm.f.) Pennell
[Syn: *Vandellia cordifolia* (Colsm.) G. Don; *Lindernia cordifolia* (Colsm.) Merr.]

Diffuse or procumbent glabrous herb, rooting at nodes. Leaves subsessile or shortly petioled, ovate or oblong-ovate, crenate-serrate, obtuse, subacute or acute, base subtruncate, subcordate or cordate. Flowers bluish-purple (or white), solitary, axillary, spreading. Capsule linear-lanceolate.

Very common in moist and shady places and grassy fields during rains.

Flowering : May - December
& Fruiting



Lindernia ciliata (Colsm.) Pennell
(Syn: *Vandellia brachiata* Haines)

Vernacular name: Khetkura (O).

Erect glabrous herbs; branches and peduncles 4-angled. Leaves sessile or sub-sessile, oblong, sharply and closely serrate, obtuse or subacute, glabrous or minutely hirtellous beneath. Flowers purple, pink or white, in lax terminal racemes; pedicels rigid. Capsule linear-oblong.

Abundant in open fields, roadsides, field bunds and other moist localities.

Flowering : September - November
& Fruiting



Lindernia crustacea (Linn.) F. V. Muell. [Syn: *Vandellia crustacea* (Linn.) Benth.]

Glabrous herb. Stems and branches angled. Leaves ovate, entire, serrate or crenate, obtuse or acute, base broad or narrowed. Flowers bluish, blue-violet or pinkish-violet, axillary and terminal, pedicels erect or spreading, slender; corolla narrow, lower lip with a yellow blotch in the throat. Capsule ovoid.

Fairly common in waste places, grassy fields, marshy areas and a common weed of agricultural fields.

Flowering : July - December
& Fruiting



Lindernia parviflora (Roxb) Haines [Syn: *Ilysanthes parviflora* (Roxb.) Benth.]

Erect, slender, glabrous herb. Leaves sessile, ovate-lanceolate, lanceolate, linear-lanceolate, entire, acute, glabrous, 3-5-nerved from the base. Flowers purple or white, on slender pedicels, in the axils of upper reduced leaves. Capsule ellipsoid, acute.

Rare, in swampy places and along banks of lake.

Flowering : September - April.
& Fruiting



Mazus pumilus (Burm. f.) Steenis
[Syn: *Majus rugosus* Lour.; *Mazus japonicus* (Thunb.) Kuntze]

Small herb with prostrate, ascending pubescent branches and erect scapes; leaves on the lower part alternate. Leaves mostly radical, spatulate, crenate, more or less sinuate or dentate. Flowers white, in terminal sub-secund racemes; calyx 5-lobed, enlarging in fruit. Capsule sub-globose.

Common in shady and moist localities under trees.

Flowering : September - December
& Fruiting



Mecardonia procumbens (Mill.) Small
[Syn: *Mecardonia dianthera* (Sw.) Pennell]

Glabrous diffuse herb; branches angular. Leaves shortly petioled, ovate or elliptic, crenate-serrate or serrate, obtuse, base obtuse or slightly cuneate. Flowers yellow, axillary, solitary on slender pedicels; corolla subequally 4-lobed, slightly exserted from the calyx. Capsule oblong or ellipsoid.

A common weed of moist waste places, gardens and agricultural fields.

Flowering : Most part of the year.
& Fruiting



Scoparia dulcis Linn.

Vernacular name : Khelapapada (O).

Erect much branched glabrous herb. Stems 4-6-angled or lined. Leaves petiolate, 3-nately whorled, upper often opposite, rhomboid, elliptic, ovate or lanceolate, serrate, acute, glandular, base tapering. Flowers 3-6 from each whorl; corolla 4-fid, densely pilose at throat, white. Capsule subglobose.

Quite abundant in waste places, grassy fields and road side.

Flowering : Throughout the year.
& Fruiting



Striga angustifolia (D. Don) Saldanha (Syn: *Striga euphrasioides* Benth.)

Erect herb, stem simple or rarely branched, 4-angular, scabrid. Leaves linear, sometimes toothed, margin revolute. Flowers white, in terminal spikes; lower bracts often exceeding the calyx; calyx strongly 15-ribbed, lobes linear, 3-nerved; corolla-tube pubescent. Capsule obovoid.

Not very common, occasionally found in open grassy fields especially in lateritic soils during rainy season.

Flowering : July - November
& Fruiting



UTRICULARIACEAE

Utricularia aurea Lour. (Syn: *Utricularia flexuosa* Vahl)

Vernacular name: Bhatudia dala (O); Jhangi (Beng.).

Aquatic herb. Floating rhizoids sometimes present at or near the base of the peduncle, usually 3-4, fusiform or narrowly fusiform, inflated. Flowers yellow, from an emerging raceme; upper lobe of corolla broadly ovate, apex rounded, lower lip larger, apex rounded, entire or retuse. Capsule globose, circumscissile.

Quite common as a floating plant in lakes, ponds, ditches, flooded rice fields and other stagnant water bodies.

Flowering : November - January
& Fruiting



Utricularia stellaris L f. [Syn: *Utricularia inflexa* Forssk. var. *stellaris* (Linn.f.) P. Taylor]

Vernacular name: Bhatudiadala (O); Jhangi (Beng.).

Aquatic herb with inflated floats. Foliar organs numerous; primary segments 3-6, sub-verticillate, each pinnately divided and dichotomously forked, ultimate segments capillary; traps numerous stalked, broadly obliquely ovoid. Inflorescence lateral, few-flowered; pedicels filiform, recurved. Flowers yellow. Capsule globose; seeds numerous, prismatic, 4-6-angled.

A common floating aquatic plant in shallow water ponds, ditches and rice fields.

Flowering : October - January
& Fruiting



BIGNONIACEAE

Millingtonia hortensis Linn.f.

Vernacular name: Sitahara, Akasa Malli (O); Akas-nim (H, Beng.); Indian Cork Tree (E).

Tall tree. Bark thick, corky. Leaves 2-3-pinnate, leaflets ovate or ovate-lanceolate, sinuate, crenate or coarsely toothed, acuminate, base rounded, often oblique. Flowers tubular, pendulous, white, fragrant, in large panicles. Capsule acute at both ends.

Frequently planted in gardens and as an avenue plant; often self-sown.

Flowering : July - November.
& Fruiting



Oroxylum indicum (Linn.) Vent.

Vernacular name : Phanphana, Phepana (O); Sona, Sonpatti (Beng.); Sagru, Sauna (H); Midnight Horrors (E).

Small trees with few branches; bark light-brown, soft, corky; branches with large leaf-scars. Leaves in terminal clusters, very large, ternately 2-3 pinnate; pinnae opposite; leaflets 2-4 pairs, ovate to elliptic. Flowers large, fleshy, reddish-purple inside, yellowish inside, in stout terminal racemes. Capsule flat, deep-brown, straight, sword-like, valves woody; seeds flat, winged.

Occasional, in mixed deciduous forests and thickets close to villages.

Flowering : July - August
Fruiting : December - March



Pyrostegia venusta (Ker.-Gawler)
Miers (Syn: *Bignonia venusta* Ker.-
Gawler)

Vernacular name : Golden Creeper (E).

Large scandent shrub. Leaves pinnately 3-foliolate or the terminal leaflet often converged into a 3-fid tendril; leaflets ovate, acuminate, glabrous. Flowers numerous, showy, tubular, orange, in axillary drooping corymbose cymes.

A common ornamental plant of gardens, porticos and pergolas.

Flowering : December - February.

Fruiting : Not observed



Spathodea campanulata P. Beauv.

Vernacular name: Turi (O); African Tulip Tree (E).

Large trees; bark pale or white, young parts velutinous. Leaves opposite, imparipinnate; leaflets 9-15, oblong or lanceolate, elliptic, minutely pubescent. Flowers scarlet or orange-scarlet, in dense terminal raceme, velutinous; calyx spathaceous; corolla campanulate. Capsule erect, lanceolate-oblong, valves keeled; seeds winged.

Commonly planted in gardens and along roads as an avenue tree.

Flowering : December - February

Fruiting : April - June



PEDALIACEAE

Sesamum orientale Linn. (Syn: *Sesamum indicum* Linn.)

Vernacular name : Khasa, Rasi, Tila (O); Til (Beng.,H); Sesame, Gingelly (E).

Erect herb, glandular-pubescent. Stem terete below, 4-gonous above. Leaves long-petioled, upper lanceolate or oblong, serrate or subentire or uppermost leaves linear, alternate. Flowers white, pale pinkish-violet or pinkish, often spotted yellow within, drooping. Capsule erect, oblong, bluntly 4-gonous, shortly beaked.

Quite frequent as weed along roads and grassy fields during rainy season; commonly cultivated as an oilseed crop.

Flowering : July - December
& Fruiting



MARTYNIACEAE

Martynia annua Linn. (Syn: *Martynia diandra* Gloxin)

Vernacular name : Baghanakhi (O,H, Beng.); Devils claw, Tiger claw (E).

Undershrub. Leaves broadly ovate or deltoid, repand-dentate, acute, base cordate. Racemes 7-12-flowered; flowers drooping; bracts broadly ovate; corolla purple with yellow throat, glandular hairy, mouth very oblique; lobes unequal, suborbicular. Fruits ridged, with 2 hooked, stout claws

Common in wastelands and roadsides during post-monsoon months.

Flowering : August - October
Fruiting : November - January



ACANTHACEAE

Andrographis paniculata (Burm.f.) Wall. ex Nees

Vernacular name : Bhuinimba, Chiraita (O); Chiraita (Beng.,O); Charayata (H).

Erect, glabrous herb. Stem 4-angled. Leaves sessile or subsessile, linear-lanceolate or lanceolate, acute, glabrous or minutely puberulous beneath, base cuneate. Flowers pedicelled, white-purple or spotted purple, solitary and erect on slender, spreading, large panicles. Capsule oblong, very sparsely gland-hairy, finally glabrous.

Abundant on roadsides, open wastelands, forest floors and scrub forests through out the area.

Flowering : September - May
& Fruiting



Asystasia gangetica (Linn.) T. Anders.

Straggling or scandent herb; stem pubescent. Leaves ovoid or rhomboid-oblong, acute, pubescent, base rounded or sub-cordate. Flowers white, purple or pinkish-blue, funnel-shaped, in lax terminal racemes. Capsule elliptic, shortly beaked, pubescent.

Occasional in bushes and thickets; probably introduced and naturalised.

Flowering : October - December
& Fruiting



Barleria prionitis Linn.

Vernacular name : Daskeranta (O); Kantajati (O,Beng.); Piyabasa (H).

Rigid, armed under-shrub. Axillary shoots or inflorescence with decussate spines. Leaves elliptic, ovate, obovate or oblong-lanceolate, obtuse or acuminate, often spine-tipped, minutely punctulate both sides. Flowers yellow, 1-3 together in the axils or terminal spikes; corolla funnel-shaped, lobes 5, unequal. Capsule oblong, with solid beak.

Fairly common in open fields, waste places and dry forests.

Flowering : October - February
& Fruiting



Barleria strigosa Willd.

Vernacular name : Bansuralli, Banmalli, Koilikanta (O); Dasi (Beng).

Undershrub; branches strigose. Leaves large, elliptic or ovate, acuminate, strigose on nerves beneath, lineolate above. Flowers blue, in dense secund spikes. Bracteoles imbricate, oblong or elliptic; two larger calyx-lobes imbricate in a row on the upper side of the spike and the bracteoles in two lateral rows. Corolla tubular, funnel-shaped. Capsule 4-seeded.

Frequent in shady moist localities and forest floors.

Flowering : September - November
Fruiting : February - May



***Blepharis maderaspatensis* (Linn.)
Roth. (Syn: *Blepharis boerhaviifolia*
Pers.)**

Diffuse herb with creeping root -stock. Leaves mostly 4 in a whorl, elliptic, elliptic- oblong or ovate, subentire or remotely serrate, acute or obtuse, hairy on the nerves beneath. Flowers white, fascicled or solitary; bracts oblanceolate or spatulate. Upper corolla-lip obsolete, lower lip large, 3-lobed, with pink veins. Capsule broadly ellipsoid.

Very common in forests, roadsides, scrub forests and moist wastelands.

Flowering : August - March
& Fruiting



***Dicliptera bupleuroides* Nees (Syn:
Dicliptera roxburghiana auct. non Nees)**

Herb or undershrub. Stems 4-angled or grooved and striate. Leaves often unequal in a pair, ovate, acuminate, hairy beneath; thinly pubescent or hairy above. Flowers rose-purple, in very compound axillary sessile cymes and terminating short axillary or leaf-opposed branches. Corolla hairy without, lips subequal. Capsule clavate; seeds ovoid, compressed.

Fairly common in moist and shady places of hilly forests and village thickets.

Flowering : September - February
& Fruiting



Dipteracanthus prostratus (Poir.)
Nees (Syn: *Ruellia prostrata* Pers.)

Rambling or creeping herb, rooting at nodes. Leaves ovate, acute or obtuse, hairy above, sparsely pubescent on nerves beneath, base obtuse. Flowers bluish or purple, axillary, solitary; corolla tubular-ventricose, caducous. Capsule clavate, pubescent, basal portion empty and solid.

Abundant among bushes and hedges and moist shady places in forests.

Flowering : July - January
& Fruiting



Ecbolium viride (Forssk.) Alston var.
dentata (Klein ex Link) Raizada [Syn:
Ecbolium linneanum Kurz var. *dentata*
(Klein ex Link) C. B. Clarke]

Undershrub, stem glabrous. Leaves lanceolate, ovate-lanceolate or elliptic, acute to acuminate, pale beneath, petiole short, winged. Flowers white or bluish, in dense spikes; bracts large, pale-green, dentate or denticulate; corolla-tube long, slender, limb 2-lipped, lower lip 3-lobed, prominent. Capsule subspathulate, with an ovate upper portion, very acute or cuspidate.

Mostly found under trees, village groves and shady localities in forests; often in pure patches.

Flowering : August - March
& Fruiting



Eranthemum nervosum (Vahl) R. Br. ex Roem. & Schult. [Syn: *Daedalacanthus nervosus* (Vahl) T. Anders.]

Shrubs; stems 4-angled, puberulous. Leaves large, elliptic to ovate, often obscurely dentate or crenate-dentate, acuminate, base decurrent. Flowers blue, in ternately, corymbosely paniced terminal spikes; bracts white, green-veined, imbricating. Capsule clavate, with a short point, glabrous.

Occasional is shady moist localities and in forest floors.

Flowering : December - May
& Fruiting



Hemigraphis hirta (Vahl) T. Anders.

Prostrate or trailing herbs, softly white-villous. Leaves sessile or sub-sessile, , crenate, obtuse or acute, densely hirsute. Heads small, few-flowered; bracts oblong or oblanceolate. Flowers purplish or pale blue; corolla tubular-ventricose; longer filaments laxly hairy below. Capsule linear-oblong, about 12-seeded.

Fairly abundant in low-lying areas, paddy fields, harvested crop fields and open places.

Flowering : March - May
& Fruiting



Hemigraphis latebrosa (Heyne ex Roth) Nees

Vernacular name: Bareng Phul (O).

Erect or diffuse, softly hairy herbs; stem 4-angled, patently hairy. Leaves long-petioled, ovate or ovate-lanceolate, coarsely toothed or crenate-dentate, acuminate. Flowers blue, in capitate or sub-capitate spikes, with soft stiff hairs; corolla tubular or funnel-shaped, tubes sometimes yellow. Capsule linear, 6-seeded, patently hairy.

Common as undergrowth in hilly forests, scrub jungles and rock crevices.

Flowering : November - March
& Fruiting



Hygrophila schulli (Buch.-Ham) Almeida & Almeida [Syn: *Hygrophila auriculata* (Schum.) Heine; *Asteracantha longifolia* (Linn.) Nees]

Vernacular name : Koilikhia, Koelekha (O); Talimakhana (H); Kulia Khara (Beng.).

Undershrub, with hispidly hairy stems and whorled spines at the nodes; spines often 6 in a whorl. Leaves sessile, pseudo-whorled from the shortened axillary branchlets; leaves often 6 in a whorl, the two outer ones often larger. Flowers purple, in axillary whorls; upper lip of corolla 2-lobed and lower 3-lobed. Capsule linear-oblong, shorter than calyx-lobes.

Quite frequent along water courses, rice fields, lakes, ponds and swamps.

Flowering : October - March
& Fruiting



Indoneesiella echioides (Linn.)
Sreemadh. [Syn: *Andrographis echioides* (Linn.) Nees]

Vernacular name: Bada Bhuinima (O);
Birkubet (H).

Erect herb, 1-2 ft tall, stem and branches 4-gonous, densely villous. Leaves sessile, oblong, obtuse or rounded, hispid-pubescent on both sides. Flowers white or pale-purple, brown or purple spotted, erect, on divaricate simple or branched racemes from all axils; racemes glandular-pubescent. Capsule ellipsoid, compressed.

Very common on walls, roofs, rock crevices and in dry forests.

Flowering : August - January.
& Fruiting



Justicia adhatoda Linn. (Syn:
Adhatoda zeylanica Medic.; *Adhatoda vasica* Nees)

Vernacular name : Basanga, Basak (O);
Vasaka (Beng.); Adulasa (H).

Shrubs. Leaves large, elliptic, elliptic-lanceolate or ovate lanceolate, acuminate, minutely pubescent. Flowers white, subsessile, large, in axillary and terminal, sometimes thyriform spikes; calyx lobes 5; corolla 2-lipped, tube short, upper lip galeate, lower spreading, 3-lobed. Capsule clavate-oblong, pubescent, with a long solid base.

Often planted in gardens and as a hedge plant near villages, sometimes wild in scrub forests and waste grounds.

Flowering : June - February
& Fruiting



Justicia betonica Linn.

Erect undershrub. Stems striate, from a perennial root-stock. Leaves petioled, ovate, lanceolate or ovate-lanceolate, smaller upwards, entire or crenate, dentate, acute to acuminate, glabrous or pubescent both sides. Flowers white, rose spotted, in mostly terminal, 1-3-nate spikes, often paniced; bracts closely imbricate, white, green-nerved, ovate or narrowly ovate. Capsule clavate, pubescent.

Common in shady moist localities and waste places; also as undergrowth in forests.

Flowering : October - March
& Fruiting



Justicia gendarussa Burm.f. (Syn: *Gendarussa vulgaris* Nees)

Vernacular name : Kukuradanti, Bada Basang (O); Jagatmadan (Beng.); Nilinardondi (H).

Glabrous shrub or undershrub; branches dark purple. Leaves lanceolate, linear-lanceolate or lanceolate-oblong, entire or undulate, acute to acuminate, glabrous except when young. Flowers white, purple-spotted, mostly in clusters on the axis; bracts linear; calyx lobes 5. Capsule clavate, glabrous.

Very commonly grown as a hedge plant; often run wild and get naturalized.

Flowering : February - May
& Fruiting



Justicia japonica Thunb. (Syn: *Justicia simplex* D. Don)

Herb. Stems angular and grooved, hairy. Leaves elliptic, elliptic-oblong, oblong-lanceolate, acute, subacute or subobtuse, lineolate, scattered hairy on the nerves both sides, sometimes strigose or shortly ciliate. Spikes sessile, dense, cylindric, hairy. Flowers small, pink. Capsule elliptic-oblong, with solid base and hairy tip.

Occasional, in open grassy places and wastelands.

Flowering : September - January
& Fruiting



Justicia quinqueangularis Koenig ex. Roxb. [Syn : *Rostellularia quinqueangularis* (Koenig. ex Roxb.) Nees]

Ascending or erect, glabrous or glabrescent herb; stems 5-sided, internodes long. Leaves sessile, in distant pairs, linear or linear-lanceolate, subacute or subobtuse, minutely lineolate above, glabrous. Spikes linear, terminal, lax, often long-peduncled. Flowers white, with pink markings. Capsule glabrous; seeds slightly concentrically tuberculate.

Fairly common in marshy localities, rice fields and margins of lakes and ponds.

Flowering : Most part of the year.
& Fruiting



Lepidagathis hamiltoniana Nees

Vernacular name: Agnikhaira (O).

Diffuse herb with perennial root-stock. Stems margined on 4-angles, glabrous. Leaves sub-sessile, in distant pairs, acute or obtuse, minutely scabrid ciliate on margins. Flowers white with pink striations within, in very congested spikes, aggregated into prickly cushions at the base of the stems; bracts lanceolate, ciliate, ending in spine; corolla silky-hairy. Capsule conical, glabrous.

Locally abundant in open dry rocky places especially on laterite outcrops and sand stone hills.

Flowering : October - March
& Fruiting



Lepidagathis fasciculata (Retz.) Nees

Vernacular name: Rasna (O).

Viscid-hairy, aromatic herb, much branched from the creeping rootstock. Branches glandular hairy, with 4 raised green lines. Leaves ovate or ovate-lanceolate, coarsely serrate or dentate, hairy on both sides. Flowers small, white, in sub-capitate spikes, at the ends of branches; bracts oblong, elliptic, hairy, 3-nerved. Capsule linear, compressed, shortly beaked; seeds 2-4.

Common in forest floors, especially in shady and moist localities.

Flowering : January - June
& Fruiting



Lepidagathis incurva Buch.-Ham. ex D. Don (Syn: *Lepidagathis hyalina* Nees)

Herbs, 30-60 cm; stem sub-terete, more or less pubescent, especially near the nodes, often redish, with 2-4 raised green lines. Leaves oblong, lanceolate-oblong, acute, strongly-nerved,. Spikes dense, clustered in upper leaf-axils; bracts very dense, 4-farious, imbricate, mucronate, 1-nerved, ciliate, glandular. Flowers white, mottles with brown, tubular-ventricose, 2-lipped. Capsule oblong, with a short beak.

Occasional, in damp forest floors and wet places.

Flowering : December - May
& Fruiting



Peristrophe paniculata (Forssk.) Brummitt [Syn: *Peristrophe bicalyculata* (Retz.) Nees]

Vernacular name : Nasa bhaga (Beng.); Atrilal (H).

Paniculately branched herb. Stems sharply 6-angled, hispid or hairy. Leaves ovate, lower larger, acute to acuminate, pubescent; upper leaves gradually passing into spreading, setaceous bracts. Flowers small, pinkish with maroon throat, in copiously branched, lax panicles; corolla-tube slender, 2-lipped, spreading. Capsule oblong, compressed, beaked, glandular and puberulous.

Quite common in bushes, thickets, hedges and scrub forests under shade.

Flowering : November - March
& Fruiting



Phaulopsis imbricata (Forssk.) Sw.
[Syn: *Phaulopsis dorsiflora* (Retz.)
Sant.; *Phaulopsis parviflora* Willd.]

Spreading glandular-hairy herb. Leaves in unequal pairs, elliptic or ovate, acute to acuminate, thinly hairy and lineolate. Spikes glandular-hairy; bracts broadly ovate or reniform, obtuse, pubescent, margins ciliate. Flowers white; larger calyx-lobe leaf-like, elliptic ovate, reticulate; corolla tube slender, lobes 5, unequal. Capsule clavate, 4-seeded.

Abundant in shady places under trees and in forest floors.

Flowering : November - March
& Fruiting



Ruellia tuberosa Linn.

Glabrous or glabrescent herb, much branched from a rootstock of numerous fleshy tubers. Leaves elliptic-obovate, obovate oblong or elliptic-oblong, entire or undulate-crenate, obtuse, base cuneate. Flowers blue, in axillary and terminal cymes; bracts and bracteoles narrow; corolla large, tube long, lobes unequal. Capsule linear; seeds large, discoid, hairy.

Occasional, in waste places, gardens, cultivated fields and roadsides.

Flowering : June - February
& Fruiting



Rungia pectinata (Linn.) Nees [Syn: *Rungia parviflora* (Retz.) Nees var. *pectinata* (Linn.) C. B. Clarke]

Vernacular name: Sankha saga (O).

Diffuse or erect herb. Leaves ovate-lanceolate, linear or elliptic, acute, nearly glabrous, except on the nerves, base narrowed, petiole short. Flowers very small, blue, in clustered secund spikes; bracts in 4 rows (2 rows of barren and 2 rows of flowering bracts); corolla 2-lipped, the lower longer, 3-lobes. Capsule ovoid or oblong, compressed.

One of the commonest weeds of waste places, grassy fields, agricultural lands and forests.

Flowering : Most part of the year.
& Fruiting



Sericocalyx scaber (Nees) Bremek. (Syn: *Strobilanthes scaber* Nees)

Vernacular name : Khakusa (O).

Herb or undershrub, with creeping rootstock. Stems hispid or strigose. Leaves elliptic or obovate, crenate, crenate serrate or entire, acute, stiff, hispid or pubescent. Flowers yellow, in short terminal panicles, hirsute or ciliate; bracteoles linear; corolla narrowly tubular, then ventricose, villous within. Capsule downy, usually 4-seeded.

Fairly common in densely shaded and wet localities close to water courses.

Flowering : January - May
& Fruiting



Thunbergia fragrans Roxb. var. *laevis* (Nees) C. B. Clarke (Syn: *Thunbergia laevis* Nees)

Vernacular name: Chakrakedar (O).

Slender twiner; branches glabrous or pubescent. Leaves ovate, obvate-oblong, distantly irregularly toothed, acute to acuminate, glabrous or pubescent, base straight, cordate or hastate. Flowers white, fragrant, solitary or 2-3 in the leaf axils. Capsule globose below, suddenly narrowed to a barren sword-shaped beak, glabrous or pubescent; seed 4, rounded.

Very rare, in bushes and thickets in damp forests and scrub jungles.

Flowering : October - March
& Fruiting



VERBENACEAE

Callicarpa tomentosa (Linn.) Murr. (Syn: *Callicarpa arborea* Miq. ex C. B. Clarke)

Vernacular name: Badapatri (O).

Moderate-sized tree. Branchlets compressed, 4-angled, densely tomentose. Leaves large, elliptic, ovate to ovate-lanceolate, entire or slightly toothed, rarely shortly denticulate or dentate-serrate, densely stellate-tomentose beneath. Flowers small, purple, in dichotomous corymbose cymes. Drupe globose, black when ripe.

Occasional in moist forests; also planted in garden.

Flowering : April - June
Fruiting : August - December



Clerodendrum inerme (Linn.) Gaertn.

Vernacular name : Guhia, Nutunga (O),
Batra (Beng., H).

Straggling, much branched shrub. Leaves elliptic, broadly elliptic or obovate, obtuse, rounded or retuse, glabrous, somewhat fleshy, closely punctulate, with glands beneath. Flowers white with bright red filaments. Drupe pyriform, somewhat 4-grooved, ultimately hard and splitting into 3-4 pyrenes.

Frequently grown in gardens as a hedge plant; wild along the coast.

Flowering : Most part of the year.
& Fruiting



Clerodendrum phlomidis Linn.f.

Vernacular name: Dankari (O); Arni,
Urui, Pirun (H).

Rambling shrub. Branchlets hoary-pubescent. Leaves ovate or sub-rhomboid, entire or coarsely crenate-dentate, acute or acuminate, glabrous. Flowers white, fragrant at night, in axillary or terminal cymose panicles; calyx green or purplish, campanulate. Drupe broadly obovoid, depressed, ultimately nearly dry.

Occasional in hedges and bushes close to villages, also planted in gardens.

Flowering : September - March
Fruiting : June - July



Clerodendrum viscosum Vent. (Syn: *Clerodendrum infortunatum* auct. non Linn.)

Vernacular name : Genguti, Kunti, Madhvi (O); Bhand (H,Beng.).

Shrub or undershrub. Leaves ovate or broadly ovate, entire or dentate, acuminate or caudate, thinly hairy on both sides, glandular beneath. Flowers white with pink centre or pink-spotted, in large terminal corymbose panicles; calyx accrescent, red in fruit; corolla tube long, slender; stamens far exserted. Drupe bluish-black, usually of a single globose drupel.

Common and gregarious in shady waste places, under trees in groves and along roads.

Flowering : January - March

Fruiting : April - July



Duranta repens Linn. (Syn: *Duranta plumieri* Jacq.)

Vernacular name: Baya koli (O).

Large shrub or small trees, usually thorny. Leaves obovate or elliptic, entire, crenate-serrate or serrate above middle, base cuneate, tapering in to a short petiole. Flowers blue, in terminal and axillary drooping racemes, sometimes sub-panicked; corolla tube exceeding the calyx. Drupe yellow, globose, with a conical apex.

A common hedge plant; often run wild; several colour leaf forms are grown in gardens as edge plants and in shrubberies.

Flowering : Through out the year.
& Fruiting



Gmelina arborea Roxb.

Vernacular name : Gamhari, Gambhari (O, Beng.,H).

Large or moderate-sized tree; bark light grey. Leaves broadly ovate, entire, acuminate or caudate, glabrous above, white-or grey-stellate-tomentose beneath, base cordate or subcordate, strongly 3-5-nerved. Flowers yellow or yellow-brown, in lateral or terminal panicles. Drupe obovoid, succulent, usually 2-1-celled and -seeded.

Occasional in forests, grown in plantations and gardens.

Flowering : March - April

Fruiting : May - June



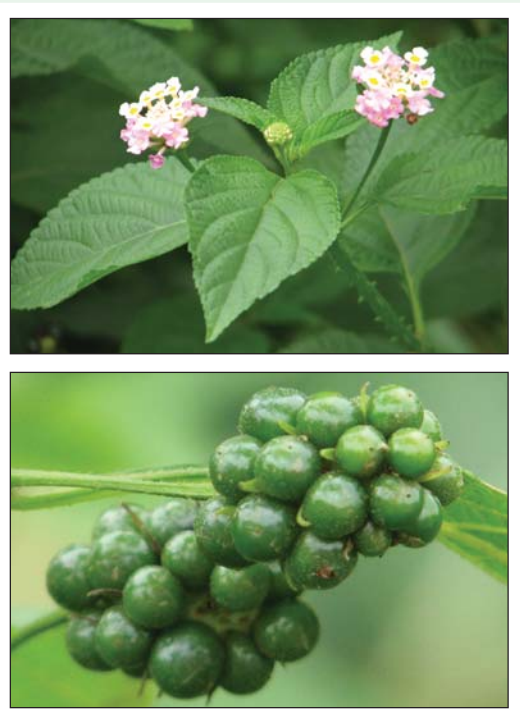
Lantana camara Linn. var. *aculeata* (Linn.) Moldenke (Syn: *Lantana camara sensu* Haines)

Vernacular name: Nagairi, Putus (O); Lantana (E).

Erect, straggling or sub-scandent aromatic shrub. Stems and branchlets armed with recurved prickles. Leaves ovate or ovate-oblong, crenate-serrate, acute, scabrid rugose above, glabrescent or shortly villous on the nerves beneath. Flowers white-pink or orange-yellow, scented, in peduncled, capitate, cylindrical spikes. Drupe black globose.

Gregarious and naturalized in scrub forests, degraded forest lands, waste places and in hedges.

Flowering : All the year round.
& Fruiting



Lippia javanica (Burm.f.) Spreng.
(Syn: *Lippia geminata* HBK.)

Vernacular name : Naguari, Nagdabana, Bhutoni (O).

Aromatic shrub or undershrub. Branches several, erect or procumbent, angled, with numerous minute glands and spreading hairs. Leaves lanceolate, oblong or ovate, closely crenulate or crenate-serrate, acute, thinly hairy and punctate above; somewhat hoary beneath. Flowers pink, scented, in capitate spikes, on axillary peduncles. Fruit globose.

Common near swamps, lakes, canals and other water bodies.

Flowering : March - December
& Fruiting



Phyla nodiflora (Linn.) Greene
[Syn: *Lippia nodiflora* (Linn.) A. Rich.]

Vernacular name : Gosingi (O); Bhuinokra (H).

Perennial, prostrate herb, strigose with short hairs. Leaves obovate or oblanceolate, serrate above middle, obtuse or rounded, thick, with few appressed hairs beneath. Flowers small, white, with yellow or pink mouth, in axillary peduncled, bracteate spikes. Fruit of 2 pyrenes, embraced by the 2-fid calyx and bracts.

Frequent in open moist places, field bunds, along the banks of lakes, pools and ditches.

Flowering : Most part of the year.
& Fruiting



Premna corymbosa (Burm.f.) Rottl. & Willd.

Vernacular name : Agiyabat, Agnibathu, Bhutabairi (O); Bhut bhirari (Beng.); Agetha (H).

Shrub or small trees with slender branches. Leaves ovate, acuminate, nearly glabrous, base truncate or subcordate. Cymes dense, in small panicles. Flowers yellowish-white; calyx deeply 2-lipped, enlarged and prominent in fruit. Drupe obovoid, black when ripe, exocarp fleshy and juicy.

Not common, in hedges and open waste places.

Flowering : March - June
& Fruiting



Premna latifolia Roxb.

Vernacular name: Gandhana (O).

Small tree. Branchlets pubescent. Leaves ovate, sometimes elliptic or lanceolate, entire, pubescent beneath or both sides when young, often pubescent on the nerves beneath; leaves drying black. Flowers white, in corymbose cymes; corolla distinctly 2-lipped, upper lip oblong, rounded, entire or emarginate, lower longer with 3 spreading, obtuse or rounded lobes. Drupe depressed-globose, black.

Occasional in scrub jungles and open forests.

Flowering : April - June
& Fruiting



Stachytarpheta jamaicensis (Linn.)
Vahl [Syn: *Stachytarpheta indica auct.
non* (Linn.) Vahl]

Vernacular name : Jalajali (O); Kariyar
tharani (H); Brazilian tea, Aaron's Rod
(E).

Erect herb. Stem terete, branches
somewhat 4-sided, mostly dichotomous.
Leaves elliptic or elliptic-ovate, crenate-
serrate, base cuneate and decurrent.
Spikes elongating, glabrous; bracts
lanceolate, acuminate, appressed.
Flowers blue, salver-shaped, curved,
sunk in the rachis of spike; calyx 4-
toothed. Fruit schizocarpic, dry, cylindrical.

Common weed of moist waste places and
roadsides.

Flowering : April - November
& Fruiting



Symphorema involucratum Roxb.

Large scandent shrub. Bark pale,
lenticellate. Leaves ovate, elliptic or
rhomboidly-elliptic, dentate or crenate-
dentate, acute, acuminate, subacute or
obtuse, glabrous above, stellate-
pubescent beneath. Flowers white,
corolla 6-8-lobed, in mostly 7-flowered
cymes; bracts foliaceous; stamens
exserted. Fruits dry, 1-seeded, included
in the accrescent calyx.

Fairly common in dry forests and scrub
jungles.

Flowering : March - April
Fruiting : April - May



Symphorema polyandrum Wight

Vernacular name: Badichang (O).

Large scandent or subscandent shrub, branchlets closely grey-stellate tomentose. Leaves ovate, suborbicular or broadly elliptic, repand or coarsely toothed, mostly obtuse, stellate-tomentose both sides. Involucral bracts elliptic, elliptic-obovate or obovate, entire. Flowers white; corolla 12-16-lobed, in peduncled capitate cymes. Fruit included in the calyx.

Occasional in dry forests.

Flowering : March-April, when leafless.

Fruiting : April - May



Tectona grandis Linn.f.

Vernacular name: Saguan (O, H); Segun (Beng.); Teak (E).

Large deciduous trees; branches 4-angled, tawny stellate-tomentose. Leaves large, elliptic or obovate, scabrid above, stellate-tomentose beneath. Flowers white, short pedicelled, in large, erect, terminal panicles; calyx large, inflated in fruit. Drupe sub-globose, 4-lobed, with a thick spongy covering.

Widely planted in forests and also in gardens.

Flowering : July - August

Fruiting : November - January



Vitex negundo Linn.

Vernacular name : Begunia, Nirgundi (O); Nirgundi, Nishinda (Beng.,H).

Shrub or small tree. Bark grey, finely hoary-tomentose. Leaves 3-5-foliolate; leaflets lanceolate or narrowly lanceolate, entire or crenate, acute to acuminate, glabrescent or puberulous above, finely white-tomentose beneath. Flowers bluish purple or white, in oblong panicles. Drupe globose.

Common in wastelands, bunds of cultivated fields, margins of canals and other water bodies.

Flowering : Through out the year.
& Fruiting



Vitex pinnata Linn. (Syn: *Vitex pubescens* Vahl)

Vernacular name: Muria, Dhala singha (O).

Small trees. Branchlets tomentose. Leaves 3-foliolate; leaflets sessile or sub-sessile, ovate or elliptic-lanceolate, acute or acuminate, minutely pubescent beneath. Panicles terminal, dense, pyramidal, bracts large, persistent. Flowers blue or purplish or white, glandular and tomentose. Drupe black, somewhat depressed-globose.

Fairly common in dry forests, mostly on sand stone hills.

Flowering : August - September
Fruiting : October - February.



LAMIACEAE

Anisochilus carnosus (Linn.f.) Wall.

Vernacular name : Bennia (O); Panjiri (H).

Erect herb. Stem 4-gonous, villous or crisp-hairy. Leaves long-petioled, ovate to broadly ovate, crenate or double serrate, obtuse, acute or subacute, fleshy, more or less villous. Flowers purple, in paniced, long-peduncled spikes, whole inflorescence covered with small red glands. Nutlets sub-orbicular, compressed, smooth, shining brown.

Common in rocky places, rock crevices, old walls, dilapidated buildings, roofs etc.

Flowering : September - January.
& Fruiting



Anisomeles indica (Linn.) Kuntze (Syn: *Anisomeles ovata* Ait. f.)

Vernacular name: Landabaguli (O).

Softly pubescent herb or undershrub. Leaves ovate, coarsely crenate, acute to acuminate, sometimes obtuse, hairy on both sides. Flowers purplish, hirsute within and without, teeth acuminate; corolla with pale or greenish upper lip and purple, spreading 3-lobed lower lip. Nutlets ovoid, black, polished, smooth.

Common weed of waste lands, road sides and open places in scrub forests.

Flowering : September - March
& Fruiting



Hyptis suaveolens (Linn.) Poit.

Vernacular name: Ganga tulsi, Bana tulasi, Gaitulasi (O); Bilati tulsi (Beng.); Wilayati tulsi (H).

Pubescent, erect, aromatic herb. Stems 4-angled. Leaves ovate to broadly ovate, sinuate and crenate-dentate or doubly serrate, acute to obtuse, hairy. Flowers blue, small, when young, often capitate; calyx campanulate, 10-nerved. Nutlets compressed, ovoid oblong, emarginate at top, pointed below, ribbed.

Very common weed, often gregarious in waste places, scrub forests, hill slopes and field bunds.

Flowering : September - January
& Fruiting



Leonotis nepetifolia (Linn.) R. Br.

Vernacular name: Kanta Sidha, Sidha (O); Hejur chei (Beng.,H).

Tall erect herb. Stems thick, 4-angled and grooved, puberulous. Leaves large, ovate, more lanceolate and deflexed under the whorls, coarsely crenate-serrate or crenate, pubescent. Flowers orange, in large distant globose whorls; bracts linear spinescent; corolla exserted, villous. Nutlets linear-oblong, widened upwards, truncate.

Fairly common in wastelands, scrub forests and village thickets.

Flowering : October - January
& Fruiting



Leucas aspera (Willd.) Link

Vernacular name: Gaisa, Gayasa, Bhutamari (O); Chota halkusa (Beng.,H).

Erect or diffuse, much branched herb. Stems deeply grooved, thinly hairy. Leaves linear, oblanceolate or rarely narrowly elliptic, crenate-serrate, serrate or subentire, acute or obtuse, thinly pubescent or shortly hairy both sides. Flowers white, in terminal and axillary whorls; bracts linear, hispid-ciliate; calyx mouth oblique. Nutlets smooth, brown.

Abundantly found in cultivated land (especially in pulse fields), waysides and sandy localities.

Flowering : July - January
& Fruiting



Leucas cephalotes (Roth) Spreng.

Vernacular name: Gayasa, Gaisa (O); Barahalkusa (Beng.); Dhurpi sag (H).

Erect annual herb; stem 4-grooved, patently hairy. Leaves ovate-lanceolate or elliptic-oblong, remotely serrate or crenate-serrate, densely pubescent on both sides. Whorls dense, globose, terminal or sub-terminal; bracts large, closely imbricating. Flowers white; calyx tubular, mouth oblique, hairy within; corolla exserted, upper lip densely bearded. Nuts smooth, brown.

Common weed of wastelands, cultivated fields and on roadsides.

Flowering : August - December.
& Fruiting



Ocimum basilicum Linn. (Syn: *Ocimum americanum* Linn.)

Vernacular name : Durlabha, Karpurakanti, Landabaguli, Dahana (O); Babui tulsi (Beng.); Kali tulsi, (H); Sweet Basil, Common Basil (E).

Erect, branched herb, aromatic. Stems blackish, pubescent. Leaves ovate or lanceolate, entire, acute, glabrous, glandular. Racemes verticillasters, many-flowered; bracts lanceolate-ovate. Flowers white-bluish-purple or pinkish; corolla campanulate, 2-lipped. Nutlets oblong or ellipsoid, pitted; pericarp mucilaginous when moistened.

Common in waste places and sandy soils during post-monsoon months.

Flowering : September - June
& Fruiting



Ocimum sanctum Linn.

Vernacular name : Tulasi, Dhala Tulasi, Kala Tulasi (O); Tulsi (Beng., H); Sacred Basil, Holy Basil (E).

Erect aromatic herb or much-branched undershrub. Branchlets pubescent or hairy. Leaves elliptic, elliptic-oblong or ovate, ovate-oblong, crenate-serrate, obtuse or acute, hairy both sides. Flowers very small, purplish or crimson, verticillasters in racemes. Nutlets reddish or yellowish with small black markings, broadly ellipsoid.

Very commonly planted in houses and gardens as a holy plant; self-sown in waste places close to human habitations.

Flowering : Through out the year.
& Fruiting



Orthosiphon thymiflorus (Roth)
Sleesen (Syn: *Orthosiphon glabratus*
Benth.)

Vernacular name: Bhutiari (O).

Branched glabrous herb. Leaves ovate or broadly ovate, crenate or dentate-serrate, acute or obtuse, pale beneath. Flowers white-purple, about 6 in a whorl, in slender racemes; bracts ovate, cuspidate, reflexed; fruiting calyx deflexed. Nutlets broadly ellipsoid, brown.

Occasional in shady places and forest floors.

Flowering : August - December
& Fruiting



NYCTAGINACEAE

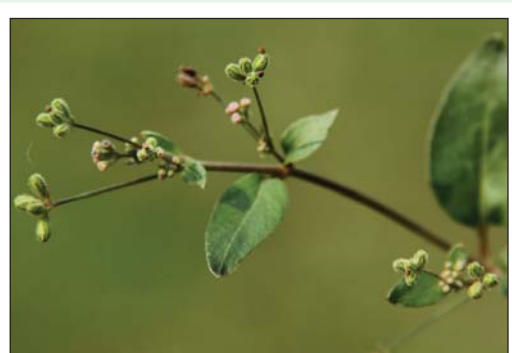
Boerhavia diffusa Linn.

Vernacular name : Puruni, Punarnava (O); Rakta punarnava (Beng.); Patharchata (H).

Diffuse herb. Stem glabrous, often purplish, thickened at the nodes. Leaves in unequal pairs, broadly ovate or sub-orbicular, obtuse or rounded at apex, whitish beneath. Flowers very small, pink, sessile or subsessile, in heads or small umbels on slender peduncles from the leaf-axils and in axillary and terminal panicles. Anthocarp clavate, 5-ribbed, glandular.

Fairly common weed of open waste places, scrub forests and cultivated fields.

Flowering : Most part of the year.
& Fruiting



Bougainvillea spectabilis Willd.

Vernacular name : Kagajaphula (O).

Large scandent, thorny shrub; branches pubescent. Leaves alternate, orbicular-ovate, acute or acuminate, both sides pubescent. Flowers and bracts ternate at the ends of every branchlet and forming large panicles; bracts red, white, pink, yellow or variegated; flowers small, yellow or white.

One of the most common ornamental plants of gardens, parks and roadsides.

Flowering : Most part of the year.
& Fruiting



Mirabilis jalapa Linn.

Vernacular name : Rangani, Chandrakanta (O); Krishnakeli (Beng.); Gulabash (H); Four O' Clock plant, Marvel of Peru (E).

Herb with large tuberous root; stem fleshy. Leaves opposite, ovate or triangular-ovate, acute to acuminate. Flowers funnel-shaped, purple, yellow or red, subtended by an involucre of 5 ovate-elliptic connate bracts, accrescent in fruit; stamens exserted. Anthocarp ellipsoid, ribbed, black.

Cultivated in gardens; very often run wild as escape in waste places.

Flowering : Most part of the year.
& Fruiting



AMARANTHACEAE

Achyranthes aspera Linn.

Vernacular name : Apamaranga (O); Apang (Beng.); Latjira, Chichira (H); Prickly chaff flower (E).

Erect straggling or sub-scandent herb. Leaves ovate, elliptic, obovate or sub-orbicular, acute, obtuse or usually shortly suddenly acuminate, generally appressed hairy beneath. Flowers polished green, deflexed, in long spikes; perianth calycine, of 4-5 rigid, aristate lanceolate segments; bracts membranous, spinescent. Urticle oblong.

Fairly abundant and common weed of scrub forests, waste lands and among hedges and bushes.

Flowering : October - February
& Fruiting



Aerva lanata (Linn.) Juss.

Vernacular name : Paunsia (O); Chaya (Beng.,H).

Perennial, suberect, diffuse or prostrate, hoary-villous herb. Leaves obovate, rounded, broadly ovate or elliptic, obtuse, white-tomentose beneath or hairy or lanata both sides. Spikes sessile, usually in axillary clusters. Tepals obtuse. Utricle rotund, compressed.

Quite common in wate places, gardens, grassy fields and roadsides.

Flowering : August - January
& Fruiting



Aerva sanguinolenta (Linn.) Blume
(Syn: *Aerva scandens* Wall. ex Moq.)

Vernacular name: Chauladhua (O);
Nariya, Nuriya (Beng.).

Straggling or ascending herb. Branches striate, often reddish, minutely hairy. Leaves mostly alternate, lower ones opposite, lanceolate or elliptic-lanceolate, membranous, appressed silky beneath. Flowers bisexual or polygamous; bract hyaline, shortly awned; tepals ovate, densely white-villous, imbricate, outer white, inner with green centre. Urticle thin.

Quite common, a weed of waste places, scrub jungles and forest roads.

Flowering : September - May
& Fruiting



Allmania nodiflora (Linn.) R.Br. ex
Wight

Annual, diffuse or procumbent herb. Leaves variable, sessile or shortly petioled, linear to elliptic, oblong or spatulate, lower surface pilose. Heads terminal and leaf-opposed, yellowish-green, ovoid; bracts linear or ovate, acuminate, aristate, hispid; tepals elliptic-lanceolate, sharply acuminate, scarious with green midrib. Seed black, shining.

Fairly abundant in cultivated fields, waste places with sandy and lateritic soils.

Flowering : July - December
& Fruiting



Alternanthera pungens Kunth (Syn:
Alternanthera echinata Sm.)

Prostrate perennial herb. Stem pinkish, hairy. Leaves exstipulate, very unequal, obovate, ovate-orbicular or oblong-orbicular, obtuse or mucronate, covered with silky hairs. Flowers in spiny heads in the axils of leaves, compressed and chaffy; heads globose or subglobose. Seed discoid, brownish.

Occasional in open grounds, a characteristic species on sandstone hills and lateritic soils.

Flowering : August - February
& Fruiting



Alternanthera sessilis (Linn.) R.Br. ex DC.

Vernacular name: Madaranga saga (O).

Prostrate or ascending herb. Leaves sessile or subsessile, variable, elliptic-oblong, oblanceolate, obovate-oblong, narrowly elliptic or linear, glabrous or slightly hairy on both sides. Cluster of flowers or spikes axillary, solitary or few in a cluster, white or pinkish; bracts scarious, white, ovate, mucronate, glabrous. Seeds discoid.

Very common in moist waste places, banks of lakes and ponds, rice fields etc.

Flowering : July - December
& Fruiting



Amaranthus spinosus Linn.

Vernacular name : Kanta khada, Kantaleutia (O, Beng.); Prickly Amaranth (E).

Erect branched herb, armed with sharp axillary spines; spines very sharp, paired or clustered. Leaves ovate, lanceolate or rhomboid, margin entire, wavy, apex acute or subacute. Flowers green, in axillary clusters; tepals 5, with green midrib and scarious margins. Utricle ovoid, circumscissile. Seeds dark brown or black.

Fairly abundant in waste grounds, road sides and cultivated lands.

Flowering : Most part of the year.
& Fruiting



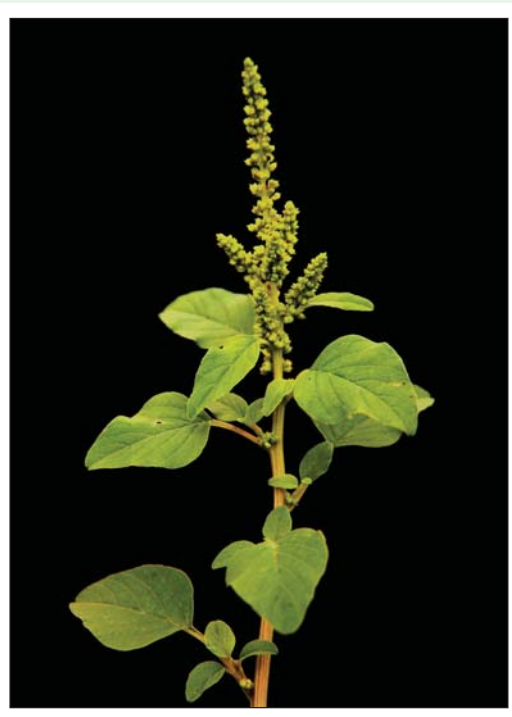
Amaranthus viridis Linn.

Vernacular name : Leutia, Leutia saga (O); Jangli chaulai (H); Ban note (Beng.); Green or Wild amaranth (E).

Erect or procumbent herb, green and glabrous. Leaves ovate, rhomboid-ovate or rhomboid, acute, sub-acute or obtuse, often emarginate. Flowers minute, in paniced spikes; bracts and bracteoles ovate-lanceolate, midrib minutely excurrent; tepals usually 3, linear to oblanceolate or oblong-lanceolate. Utricle rugose, acute, indehiscent.

A common weed of open grassy places and cultivated fields.

Flowering : Throughout the year.
& Fruiting



Celosia argentea Linn.

Vernacular name : Nahanga saga (O);
Safed murgha (H); Swetmurga (Beng.);
Quail Grass (E).

Erect, glabrous herb. Stems and branches striate. Leaves lanceolate, linear or lanceolate-oblong, acute to acuminate, base cuneate or tapering into slender petiole. Spikes shining, pink or white, peduncled, ovoid or cylindrical; tepals linear-lanceolate, mostly 6, very scarious; bracts and bracteoles similar but smaller, often aristulate. Seeds several, black, shining.

Very common as a weed in cultivated uplands and waysides.

Flowering : August - January
& Fruiting



Gomphrena celosioides Mart.

Annual, prostrate or ascending herb. Stem and branches striate, white villous. Leaves sessile or subsessile, oblong-elliptic or oblanceolate, villous. Spikes first globose and finally elongate and cylindrical, whitish, subtended by a pair of sessile leaves; tepals narrowly lanceolate, mucronate. Utricle compressed-pyriform; seeds brown, shining.

Fairly abundant, a weed of open fields and waste places.

Flowering : Most part of the year.
& Fruiting



Pupalia lappacea (Linn.) Juss. [Syn: *Pupalia atropurpurea* (Lam.) Moq.]

Vernacular name: Jatajatia (O); Duyakuya (Beng.).

Pubescent undershrub with straggling branches. Leaves ovate, ovate-oblong or lanceolate, acute, pale on lower surface. Flowers green, bisexual, fascicled in clusters, with 1-3 perfect flowers; bracts ovate, aristate; tepals lanceolate, aristate, 3-nerved, densely hairy. Utricle ovoid; seed ellipsoid, compressed, smooth, shining, black.

Commonly found along roads, edges of cultivated fields and in shady moist localities.

Flowering : August - January
& Fruiting



CHENOPODIACEAE

Chenopodium album Linn.

Vernacular name: Bathua (O. H); Bethusag (Beng.).

Erect herb, covered with powdery white or pink vesicles. Leaves variable, oblong-lanceolate or rhomboid-lanceolate, toothed or lobulate, acute, petiole slender. Flowers minute, bisexual, in short axillary spikes, often forming a terminal thyse; tepals keeled, nearly covering the urticle. Urticle membranous; seeds black.

An occasional weed in cultivated fields and gardens.

Flowering : November - March.
& Fruiting



POLYGONACEAE

Antigonon leptopus Hook. & Arn.

Vernacular name: Snehalata (O); Coral creeper (E).

Climber with branchlets and rachis of the inflorescence often passing in to tendrils. Leaves ovate-cordate or deltoid, rugose, with amplexicaul petioles and stipules. Flowers pink, in paniced racemes; perianth 5-6-merous, 3 outer tepals dry and accrescent in fruit. Nuts 3-angular.

Cultivated in gardens; often wild in hedges and waste places.

Flowering : Most part of the year.
& Fruiting



Polygonum barbatum Linn.

Erect or spreading herb. Branches glabrous or nearly so. Leaves sessile or subsessile, linear-oblong or linear-lanceolate, acuminate or acute, strigose on both sides. Racemes spiciform, terminal, slender, paniced; peduncles glabrous or nearly so; bracts short, glabrous, setose on margins. Flowers white-pinkish. Nut trigonous.

Common along rivers, streams and ponds.

Flowering : Most part of the year.
& Fruiting



Polygonum glabrum Willd.

Vernacular name : Bihagni (Beng.).

Stout erect herb. Stems woody below, swollen at the nodes. Leaves lanceolate, oblong-lanceolate or linear, acuminate, glabrous, gland-dotted beneath. Flowers pink, in rather dense paniced spiciform racemes, about in a cluster. Tepals elliptic, concave, often slightly exserted. Nut brown-black, orbicular-ovoid, compressed, polished.

Occasional, along canals, lakes and water bodies.

Flowering : September - February
& Fruiting



Polygonum hydropiper Linn.

Decumbent, ascending or rarely erect, glabrous herb. Leaves sessile, linear-lanceolate, glabrous beneath, sometimes scabrous on margins, gland-dotted; stipules glabrous. Flowers pink, in rather lax, very slender or filiform racemes. Nut usually triquetrous, opaque, granulate, occasionally flat.

Common along water courses.

Flowering : December
Fruiting : February - March



Polygonum plebeium R. Br.

Vernacular name: Muthi saga, Chanti saga (O); Chemti Sag, Dubia sag (Beng.)

Prostrate herb; stems several from the root, grooved, scabrous. Leaves linear, linear-oblong or obovate-oblong, often with revolute margin; stipules fimbriate, with excurrent nerves. Flowers small, white, green to pink, with green midrib, crowded in the leaf axils. Nuts spindle-shaped, triquetrous, brown, shining.

Fairly common in moist places, harvested crop fields and waste lands

Flowering : February - May
& Fruiting



Polygonum pulchrum Blume (Syn: *Polygonum tomentosum* Willd.)

Stout herb; stems, thick and very hairy. Leaves elliptic-oblong, lanceolate, acuminate, densely tomentose on both sides. Stipules, strigose, truncate at mouth and bristle-ciliate. Flowers white or pinkish, in paniced racemes, bracts hispid and ciliate. Nutlets biconvex, crustaceous, shining dark brown.

Abundant along water courses, in shallow ditches and swamps.

Flowering : January- March.
& Fruiting



ARISTOLOCHIACEAE

Aristolochia indica Linn.

Vernacular name : Panairi, Oyidi, (O);
Isharmul (Beng.,H); The Indian Birthwort
(E).

Glabrous perennial twiner; branches slender, sulcate. Leaves ovate or usually panduriform, obtusely acuminate or acuminate, glabrous. Flowers dark brown, 2-7 in a very short raceme or sub-clustered; bracts lanceolate, acuminate. Capsule subglobose or broadly oblong and narrowed into the clavate pedicel, dehiscent from the base.

Occasional in scrub forests, open grounds, hedges and bushes.

Flowering : July - October

Fruiting : November - February



PIPERACEAE

Peperomia pellucida (Linn.) Kunth.

Vernacular name: Ghusuri pana (O).

Succulent, shining, glabrous herb. Leaves alternate and opposite, ovate or broadly ovate, acute, subacute or obtuse, glabrous, 7-nerved, nerves clear. Spikes slender, leaf opposed, glabrous. Flowers distant, sunk in the rachis with minute peltate bracts. Fruit globose.

Very common in shady moist places, rock crevices and old walls and buildings under shade.

Flowering : August - February
& Fruiting



Piper longum Linn.

Vernacular name : Poppali (O); Pipla (Beng.); Pipal (H); Indian Long Pepper (E).

Creeping or rambling herb. Stems usually puberulous. Leaves ovate, sometimes orbicualr, elliptic-oblong or oblong, deeply cordate at base, acute, acuminate, glabrous or puberulous on the nerves beneath, base deeply cordate. Male spikes slender yellow. Female spikes cylindrical, upto 3 cm in fruit. Berries globose, 1-seeded.

Very commonly grown in gardens, creeping on tree trunks.

Flowering : July - January
& Fruiting



LAURACEAE

Cassytha filiformis Linn.

Vernacular name : Nirmuli (O); Akasbel (Beng.); Amarbeli (H).

Parasitic twining herb. Stem filiform, dark green, pubescent or glabrous. Spikes pubescent, from the axils of scale-leaves. Flowers small, bisexual, spicate or racemose, yellow; stamens 3-seriate; staminodes 3, fleshy. Drupe globose, enclosed in the enlarged inflated perianth-tube, crowned by the remains of the lobes and the stamens. .

Abundant as a parasitic twiner in dry scrub forests.

Flowering : November - February
& Fruiting



Litsea glutinosa (Lour.) Robins. [Syn: *Litsea chinensis* Lam.; *Litsea sabifera* (Willd.) Pers.]

Vernacular name: Medha, Jaisanda, Baghtal, Patraraj (O); Kakur chita (Beng.); Menda (H).

Small or medium-sized tree. Bark grey, smooth and slightly rough in old trees. Leaves very variable in size and shape, elliptic, elliptic-lanceolate, oblong or lanceolate, obtuse to acuminate or rounded, glabrous or pubescent. Flowers white or yellowish, in few-flowered corymbose umbels. Fruit black, globose.

Very common in forests, village grooves and gardens; seedlings are plenty under trees in shady moist localities.

Flowering : June - July

Fruiting : September - November



LORANTHACEAE

Dendrophthoe falcata (Linn. f.) Etting.
(Syn: *Loranthus longiflorus* Desr.)

Vernacular name : Madang, Malang, Brudhanga (O); Banda (H); Baramanda (Beng.).

Profusely branched, parasitic shrub with glabrous branches. Leaves broadly ovate, ovate-oblong, oblong or elliptic, obtuse or rounded, fleshy, glabrous, midrib often red. Flowers tubular, orange or scarlet, in axillary and extra-axillary secund racemes. Fruit oblong or ellipsoid, glabrous.

Most common parasite on trees like *Mangifera indica*, *Diospyros melanoxylon*, *Strychnos nux-vomica* and a number of other host plant species.

Flowering : September - March.

& Fruiting



Viscum articulatum Burm. f.

Vernacular name: Malanga, Kathi Malanga (O); Para gachha, Vandu (Beng.); Vadala, Bondala (H).

Leafless parasitic shrub; branches 2-3-chotomous, green, jointed, pendulous, internodes flattened; basal internodes often rounded, succeeding internodes decussately flattened. Leaves reduced to scales. Flowers minute, fascicled at the nodes, 3-4 merous. Fruits yellow, subglobose.

Frequent parasite on *Diospyros melanoxylon*, *Ziziphus mauritiana*, *Strychnos nuxvomica*, *Syzigium cumini* etc.

Flowering : December - January

Fruiting : March - April



Viscum monoicum Roxb. ex DC.

Vernacular name: Patri Malang (O); Banda, Pargatcha (Beng.); Banda, Malang (H).

Much branched parasitic shrub with slender terete branches. Leaves narrowly elliptic, lanceolate, lanceolate-oblong or oblong, often falcate, acute to somewhat acuminate, secondary nerves 3-5, slender. Flowers greenish or yellowish. Berry shortly stipitate, oblong, somewhat truncate, green, polished, smooth.

Occasional, a parasitic species on *Memecylon umbellatum* and *Holarrhena pubescens* and other trees and shrubs.

Flowering : November - December.

Fruiting : February - March



SANTALACEAE

Santalum album Linn.

Vernacular name: Chandan (O, Beng., H); Sandal Tree (E). .

Small evergreen tree. Bark dark-grey, rough, wood hard and close grained. Leaves opposite, elliptic, elliptic-ovate or ovate-lanceolate, obtuse, acute or subacute, glaucous beneath. Flowers small, at first pale then brownish-purple; tepals ovate, rotate. Drupe black, fleshy, globose or ovoid, shining.

Frequently planted in gardens, road sides and temple premises; also run wild at certain locations.

Flowering : June - October

Fruiting : December - April



EPHORBIACEAE

Acalypha indica Linn.

Vernacular name: Indramaricha (O); Muktajuri (Beng.); Kuppi, Khokli (H); Indian Acalypha (E).

Erect herb. Stems puberulous. Leaves long-petioled, ovate or rhomboid-ovoid, serrate, acute or obtuse, base 5-nerved, subacute, entire. Spikes numerous, axillary, female flowers below, 9 or more, lax, males above; female bracts foliaceous, concave, suborbicular. Capsule concealed by the bract, hispid, usually 1-seeded.

Common weed of shady localities, gardens and waste places.

Flowering : July - December
& Fruiting



Antidesma acidum Retz. [Syn: *Antidesma diandrum* (Roxb.) Roth]

Vernacular name : Nuniari, Nunnunia (O); Matta (Beng.); Amta, Khatua (H);

Large shrub or small tree. Leaves elliptic, oblong, obovate-oblong or somewhat rhomboidly elliptic, acute, subacute or obtuse, glabrous, pale beneath, secondary nerves 3-5. Flowers green, pedicelled, in mostly solitary, rarely 2-3-nate racemes. Drupe red or black, ovoid or subglobose, glabrous.

Common in damp forests and under trees in grooves.

Flowering : May - June

Fruiting : September - December



Antidesma ghaesembilla Gaertn.

Vernacular name: Katha marmuri, Nunnunia, Jamula (O); Tintoa (Beng.); Umtoa (H).

Shrub or small tree; bark pale and slightly cracked. Leaves elliptic, broadly elliptic, orbicular or elliptic-oblong, rounded at both ends, glabrescent above, hairy or tomentose beneath. Flowers minutely pedicelled, in densely tomentose, paniced racemes; tepals 5-7, ciliate or wooly. Fruit red to black, ovoid-oblong edible.

Quite abundant in dry forests and scrub jungles.

Flowering : April - June

Fruiting : September - October



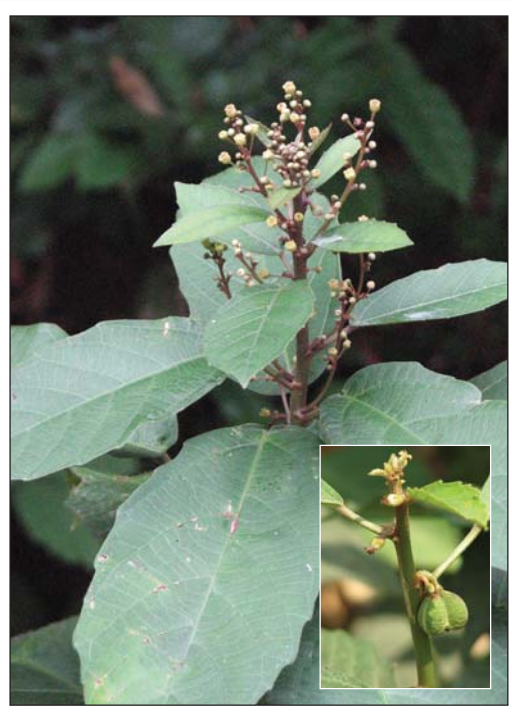
***Baliospermum montanum* (Willd.)
Muell.-Arg. (Syn: *Baliospermum
axillare* Blume)**

Vernacular name: Danti, Dimbajoda,
Kanaka (O), Danti (Beng., H).

Undershrub. Stems pubescent or strigose.
Leaves obovate-oblong, ovate-oblong,
ovate, elliptic-oblong or upper lanceolate
and smaller, variously lobed, coarsely
sinuate-lanceolate, strigose, 3-5 nerved at
the base. Flowers yellowish, fascicled,
axillary, in the axils of bracts. Capsule 3-
lobed, hirsute or pubescent.

Fairly common in shady places, waste
lands, field bunds and in scrub jungles.

Flowering : October - April
& Fruiting



***Breynia retusa* (Dennst.) Alston
[Syn: *Breynia patens* (Roxb.) Rolfe]**

Vernacular name: Jajan, Jajang,
Raktatrichuli (O); Chitki (Beng.); Kambhi
(H).

Small shrub. Leaves elliptic, elliptic-
oblong or sub-orbicular, glabrous.
Flowers axillary, monoecious. Male
flowers more numerous, usually 2-3 from
an axil, turbinate, creamish-yellow.
Female flowers larger, the perianth
spreading, enlarging in fruit. Fruit
globose, flattened both ends, red when
ripe.

Occasional in shrub jungles, open forests
and roadsides.

Flowering : April - August
& Fruiting



Breynia vitis-idaea (Burm.f.) Fischer
[Syn: *Breynia rhamnoides* (Retz.)
Muell.-Arg.]

Vernacular name : Jajan, Jhanjika (O);
Kamkata (Beng.); Tikhar, Sura saruni (H).

Shrub with spreading branches. Leaves
close-set, distichous, elliptic, elliptic-
ovate or broadly oblong, obtuse, rounded
or somewhat retuse, glabrous, pale
beneath. Flowers monoicous or rarely
dioecious, green, yellow or pinkish,
axillary, solitary or in few-flowers
clusters. Female flowers solitary, green,
campanulate. Fruit red, globose or
globose-ovoid.

Common in forests edges, especially on
sand stone hills and open grounds.

Flowering : March - February
& Fruiting



Bridelia monoica (Lour.) Merr.
(Syn: *Bridelia tomentosa* Blume)

Vernacular name: Chotakasi (O); Mindri,
Sirai (Beng.).

Large bushy shrub or small tree with
drooping branches. Branchlets slender,
rusty-tomentose, pubescent or
puberulous. Leaves elliptic, lanceolate or
linear-lanceolate, acute or acuminate,
glabrous, dark green above, pale beneath.
Flowers small, dioecious; petals clawed,
coarsely toothed. Drupe blue-black,
globose.

Not common, found in scrub jungles and
dry miscellaneous forests.

Flowering : September - October
Fruiting : November - March



***Bridelia retusa* (Linn.) Spreng. (Syn: *Bridelia airy-shawii* P. T. Li)**

Vernacular name : Kasi, Panikasi (O); Kasai (Beng.); Kaj, Ekadania (H).

Small or moderate-sized tree, usually with long conical thorns on the trunk when young. Leaves oblong or elliptic-oblong, acute, obtuse or rounded or even retuse, glabrous or pubescent, glaucous beneath. Flowers small, green, monoecious, in axillary clusters towards the ends of the branchlets. Drupe black when fully mature, globose.

Quite common in dry mixed forests, also planted in gardens.

Flowering : August - October

Fruiting : September - January



***Chrozophora rotleri* (Geiseb.) Juss.**

Annual stellate-pubescent herb, erect or diffusely branched. Branches numerous, spreading from the rootstock, woolly-tomentose or scaly. Leaves broadly ovate, ovate-oblong, or suborbicular, obtuse, woolly-tomentose. Flowers in axillary and terminal bracteate racemes; male flowers crowded in upper part of raceme and female in the lower. Capsules subglobose, stellate-tomentose, reddish-purple when mature.

Locally gregarious in waste places, harvested crop fields and road sides; also common in sandy soils.

Flowering : Most part of the year.

& Fruiting



***Cleistanthus collinus* (Roxb.) Benth.
ex Hook.f.**

Vernacular name: Karada, Padashi (O),
Karla (H).

Small or moderate-sized tree. Bark nearly black, rough, lenticellate. Leaves obovate, orbicular or broadly elliptic, glaucous beneath, rounded or retuse at both ends. Flowers green, small, appearing with the leaves, males clustered, female often solitary, sessile. Capsule subglobose, woody, chest-nut colored when ripe, shining.

Fairly common in dry forests and thorny scrub jungles.

Flowering : April - May

Fruiting : October - April



***Croton bonplandianus* Baill. (Syn:
Croton sparciflorus Morong.)**

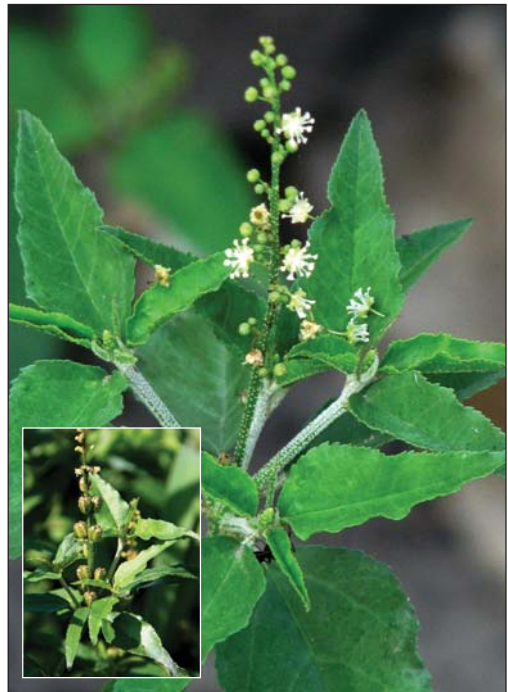
Vernacular name : Bana miricha,
Lankamarichia (O).

Herbs or small undershrubs. Branches tough, with stellate-hairy tubercles. Leaves lanceolate, wavy and serrate, acute to ovate, glabrous, base cuneate. Racemes elongate, with cream-coloured flowers, males in the upper portion, females in the lower part. Capsule of 3, bivalved cocci , epicarp warty. Seeds oblong.

One of the most common weeds of wastelands, agricultural fields, gardens and road sides.

Flowering : All the year round.

& Fruiting



***Croton caudatus* Geisel.**

Vernacular name : Furudi (O);
Nanbhantur (Beng.).

Subscandent shrubs; branchlets stellate-tomentose. Leaves ovate or orbicular, toothed or crenate-dentate, base cordate, acute to acuminate, stellate-tomentose. Flowers white, on 2-3-nate pedicels, in racemes often elongating to 25 cm, monoecious; lower 2-6 flowers being female. Capsule globose or obovoid, stellately mealy or rough with tubercles.

Quite common in scrub forests on sand stone hills and lateritic soils.

Flowering : April-August.
& Fruiting



***Drypetes roxburghii* (Wall.) Hurus.
(Syn: *Putranjiva roxburghii* Wall.)**

Vernacular name : Poichandia (O);
Putranjiva (H, Beng).

Large or moderate-sized tree, with drooping branches; bark dark grey. Leaves bifarious, oblong, broadly lanceolate or oblong-lanceolate, margin wavy, serrulate or shallowly distantly crenulate, obtuse or rounded. Male flowers yellow. Female flowers green. Drupe obovoid or ellipsoid, hoary-tomentose, apiculate; endocarp 1-seeded.

Often planted along roads and in gardens.

Flowering : March - April
Fruiting : January - March



Euphorbia hirta Linn.

Vernacular name : Chitakutei, Hariharik, Chelidudhi (O); Bara kerui (Beng.); Dudhi (H).

Erect or prostrate hairy herb with milky latex. Leaves opposite, ovate-oblong, broadly oblong, elliptic-oblong, lower surface pale. Cyathia aggregated in capitata, sessile axillary cymes; male florets ebracteolate; female florets laterally pendulous. Involucre campanulate, strigose, ciliolate, glands 4-5. Capsule pubescent or hairy.

Fairly common weed of waste places in a range of habitats.

Flowering : Most part of the year.
& Fruiting



Euphorbia nivulia Buch.-Ham. (Syn: *Euphorbia neriifolia* sensu Roxb.)

Vernacular name : Patra Siju, Katha siju, Bada siju (O); Sij (Beng.); Kata thohar (H).

Large spiny shrub or small tree. Branches cylindrical; spines straight, paired on flat corky bases. Leaves alternate, clustered towards the ends of the branches, fleshy, oblanceolate-oblong or spatulate; male inflorescence with sterile florets, bracteolate; female florets laterally pendulous. Capsule 3-lobed, lobes compressed; seeds 4-angular, smooth.

Common in scrub forests, hillocks and planted as hedge plant in villages and homesteads.

Flowering : March - June
& Fruiting



Euphorbia rosea Retz.

Small glabrous herb with many slender prostrate or ascending branches and milky latex. Leaves opposite, obliquely obovate, oblanceolate-oblong or linear-spathulate. Cyathia rosy, in subterminal, lax clusters, rarely solitary in upper axils. Capsule minutely tuberculate or smooth.

Occasional, in sandy localities and open grassy fields.

Flowering : October - December.
& Fruiting



Euphorbia thymifolia Linn.

Vernacular name : Kalijati, Patra-siju (O); Dudiya (Beng.); Chhoti dudhi (H).

Prostrate herb with milky latex; branchlets sparsely hairy. Leaves opposite, oblong, obliquely oblong, remotely serrulate or crenulate, margin often red, obtuse, sparsely hairy beneath, glands scattered, red. Flowers axillary, solitary or few in clusters, green or pink. Capsule appressed hairy all over; seeds transversely furrowed.

Common weed of open waste places and crop fields.

Flowering : Most part of the year.
& Fruiting



Glochidion lanceolarium (Roxb.)
Dalz.

Small glabrous tree. Branchlets green, rather flexuous and angular. Leaves elliptic, narrowly-elliptic or oblong or oblanceolate, glabrous, coriaceous, dark green, shining; male flowers numerous, clustered axillary, yellow, on slender pedicels; female flowers 1-3 or more together, green. Capsule sessile or pedicelled, globose, somewhat depressed; seeds red.

Very uncommon, in dry mixed forests on sand stone hills.

Flowering : March- January
& Fruiting



Jatropha curcas Linn.

Vernacular name : Dhala Baigaba, Gachha Baigaba, Dhuma jada (O); Damajara, Bagharinda, Eranda gachh (Beng.); Safed arand (H); Purging nut (E).

Glabrous shrub or small tree. Bark greenish-white, smooth, peeling off in thin flakes. Leaves broadly ovate or orbicular, entire or 3-5-angled or -lobed, margin entire, glandular-hairy, apex acute or caudate. Flowers small, yellowish green, in terminal cymose panicles. Capsule subglobose or ellipsoid, green; seeds oblong.

Very common as a hedge plant in villages, field borders and also in waste lands.

Flowering : May - October
Fruiting : Most part of the year.



Jatropha gossypifolia Linn.

Vernacular name : Baigaba, Lal Baigaba (O); Lal bherenda (Beng.); Bherenda (H).

Small shrub, dark-coloured with glandular-hairs. Leaves suborbicular, palmately 3-5-lobed; lobes obovate, shortly obtusely acute, entire, margin densely glandular-hairy. Flowers red with yellow centre, in glandular corymbose cymes; petals free. Capsule 3-celled, subglobose, about 1 cm long

Abundant in waste places, road sides and scrub forests.

Flowering : Chiefly July - October.
& Fruiting



Mallotus repandus (Willd.) Muell.-Arg.

Vernacular name: Donkari, Ghirguria (O); Akus (H).

Large shrub with thorns on the trunk. Branchlets densely stellate-pubescent or tomentose. Leaves ovate or ovate-deltoid, entire or somewhat sinuate-toothed, densely stellate-pubescent beneath. Male flowers in terminal paniced racemes, tepals 3-5, yellow, suborbicular or lanceolate; female flowers green, in simple racemes. Capsule 2-valved, glandular.

Very rare, in scrub jungles and bamboo brakes.

Flowering : November - February
Fruiting : March - April



Micrococca mercurialis (Linn.) Benth.
[Syn: *Claoxylon mercuriale* (Linn.)
Thw.]

Erect annual herb. Leaves long-petioled, ovate or rhomboid, crenate or serrate, acuminate or sometimes obtuse, glabrous. Racemes numerous, capillary, with distant clusters of minute, subsessile or shortly-pedicelled male flowers and slender-pedicelled, larger female flowers; tepals 3, distant, lanceolate. Capsule deeply 3-lobed, depressed, pilose.

Common in shady moist localities, waste places, dilapidated walls and buildings during post-monsoon months.

Flowering : August - November
& Fruiting



Phyllanthus acidus (Linn.) Skeels
[Syn: *Cicca acida* (Linn.) Merr.; *Cicca disticha* Linn.]

Vernacular name: Narakoli (O); Hari phal (Beng.); Chalmeri, Nurphal (H).

Small or moderate-sized tree, branches closely marked with the scars, bearing terminal clusters of leafy branchlets. Leaves ovate-oblong or ovate-lanceolate, pale glaucous beneath. Flowers 4-merous, clustered usually in slender racemes; male flowers red, minute; female flowers green, larger. Drupe globose, 3-4-angular, 6-8 grooved, endocarp hard.

Planted in gardens and homesteads.

Flowering : May - June
Fruiting : June - October



Phyllanthus emblica Linn. (Syn: *Emblica officinalis* Gaertn.)

Vernacular name: Anola (O); Amla (O, H, Beng), Emblic myrobalan (E).

Small or moderate-sized deciduous tree with closely-set distichous leaves. Leaves linear or linear-oblong, apiculate, glabrous. Flowers monoecious, yellowish, minute, in axillary fascicles, males and females mixed or female in the lower and males in upper axils of leaves. Drupe globose, smooth, succulent, yellow, with 3 2-valved cocci.

Frequent in dry deciduous forests and scrub jungles; commonly planted in gardens.

Flowering : February - May

Fruiting : October - April



Phyllanthus fraternus Webster (Syn: *Phyllanthus niruri* auct. non Linn.)

Vernacular name : Bhui aonla, Badi aonla (O); Bhui amla (O, Beng.); Jangli Amla (H).

Erect annual herb. Stem terete and mostly naked below, 4-gonous above. Leaves elliptic-oblong or oblong, apex obtuse or rounded, base obtuse or cuneate, dark green above, paler beneath. Flowers greenish, in axillary, unisexual cymules, on lower side of leaf rachis; perianthlobes 6, margin hyaline. Capsule obovate, rounded.

A common weed of waste lands, gardens and cultivated fields.

Flowering : April - January
& Fruiting



Phyllanthus urinaria Linn.

Vernacular name: Bhuin amla (O); Hazar mani (Beng.); Lal bhuin anvalah (H).

Erect or procumbent annual herb. Stems simple or branched, somewhat compressed or angular, greenish to reddish, with numerous spreading leafy branchlets. Leaves subsessile, oblong or linear-oblong. Capsule depressed-globose, densely verrucose, often with reddish blotches.

Found growing in shady moist localities under trees.

Flowering : July - December
& Fruiting



Phyllanthus virgatus Forst. f. (Syn: *Phyllanthus simplex* Retz.)

Vernacular name : Bhuin aonla (O).

Herb with slender branches from a somewhat woody stock. Leaves subsessile, linear to oblong, acute or obtuse and mucronulate, midrib prominent, glaucous beneath. Flowers greenish-white, minute from an axillary cluster of small bracts. Capsule depressed-globose, smooth and glabrous or minutely warted.

Fairly common weed of open grassy areas, scrub forests and gardens.

Flowering : July - February
& Fruiting



Ricinus communis Linn.

Vernacular name : Jada, Gaba (O); Erandi, (H); Bheranda (Beng.); Castor (E).

Perennial, large shrub or small trees. Leaves palmately 7- or more-lobed, peltate; petiole to 20 cm; lobes lanceolate, serrate, acuminate, thinly pubescent beneath. Flowers monoecious, in terminal sub-panicled racemes; male crowded in the upper and females on the lower part of racems. Capsule 3-celled, globose, prickly.

Cultivated as an oil crop; frequently wild in waste places, agricultural fields and forests close to villages.

Flowering : Most part of the year.
& Fruiting



Sebastiania chamaelea (Linn.) Muell.-Arg.

Glabrous, annual herb with erect or diffuse, often angled stems. Leaves subsessile, linear, margin scabrid, apex obtuse or acute, glabrous. Flowers yellow, minute in short terminal, axillary or leaf-oppose spikes, female flowers at the base and males above. Capsule 3-lobed, each lobe with 2 vertical rows of soft prickles.

Quite common in grassy places, cultivated grounds, wastelands and scrub forests.

Flowering : Most part of the year.
& Fruiting



Suregada multiflora (Juss.) Baill.
(Syn: *Gelonium multiflorum* Juss.)

Vernacular name: Khakada, Khakara (O);
Ban naringa (Beng., H).

Small evergreen tree. Leaves elliptic or elliptic-oblong to oblanceolate, entire or sometimes few-dentate towards apex, obtuse, acute, coriaceous, glabrous. Flowers usually in contracted cymes, more rarely clustered; male flowers sweet-scented, yellow; female flower with orbicular or broadly oblong tepals, soon enlarging in fruit, pubescent. Capsule orange, globose, lobed.

Common in damp areas, scrub jungles and forests on sand stone hills.

Flowering : March - August
& Fruiting



Tragia involucrata Linn.

Vernacular name: Bichhuati, Lata
Bichhuati (O); Bichati (Beng.); Barhanta
(H); Indian Stinging Nettle (E).

Hispid climbing herb with stinging hairs. Leaves ovate, oblong, ovate-oblong, elliptic or rhomboid, sharply serrate, acuminate, sparsely or densely hirsute on both sides. Flowers monoecious, in terminal or leaf-opposed androgynous subspicate racemes. Capsule globose, 3-lobed, hirsute, with glandular dissected spreading tepals; seeds globose, purple black.

Common in open waste places, thorny scrub jungles and road sides.

Flowering : November - April
& Fruiting



ULMACEAE

Holoptelea integrifolia (Roxb.) Planch.

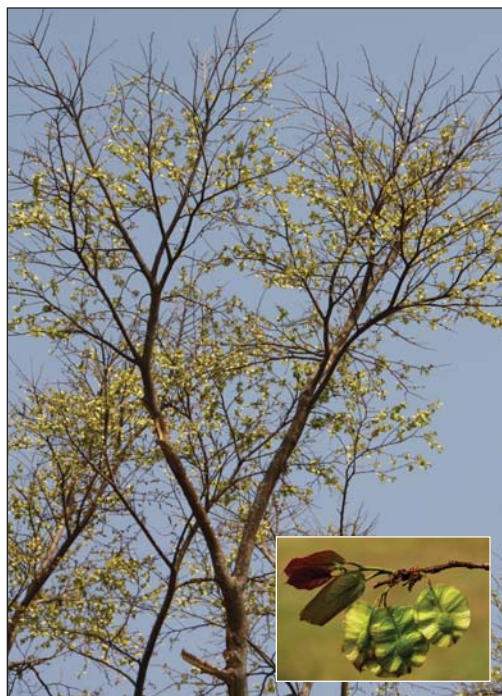
Vernacular name: Dhau (O), Charla, Papri, Begana (H).

Large tree; branches white, branchlets often with raised lenticels, puberulous; young shoots tomentose. Leaves elliptic or ovate, sometimes obovate, entire or coarsely crenate or serrate, obtuse or acuminate. Flowers green, in very numerous fascicles on the leafless branches. Fruits dry, samaroid, elliptic or suborbicular, brown.

Occasional in dry forests, also planted in gardens and road sides.

Flowering : March - April

Fruiting : May - June



Trema orientalis (Linn.) Bl.

Vernacular name: Kharkas (O); Chikan, Jibon (Beng.); Gio (H).

Small tree; branchlets with dense silky pubescence. Leaves oblong, ovate-oblong, or lanceolate, serrulate, acuminate, more or less white or silvery beneath, mostly 3-nerved at base. Flowers dioecious, in axillary cymes; male cymes usually dense; tepals narrow, female cymes lax. Drupe black when ripe.

Fairly abundant in moist forests, waste places, road sides and in gardens.

Flowering : Most part of the year.
& Fruiting



MORACEAE

Artocarpus heterophyllus Lam. (Syn: *Artocarpus integrifolius* auct. non Linn. f.)

Vernacular name: Panasa (O); Kathal (Beng.,H); Jack Tree (E).

Large, evergreen tree with dense crown. Leaves elliptic, obovate or obovate-oblong, obtuse, dark green above; stipules spathaceous. Receptacles lateral on the trunks and branches. Inflorescence at first enclosed in 2 large leathery yellowish bract like stipules of the leaf on special branchlets. Fruit a very large fleshy syncarp, oblong or cylindrical, tubercled.

Commonly cultivated in gardens, road sides, grooves close to villages; also self-sown.

Flowering : December - February

Fruiting : June - July



Artocarpus lacucha Roxb. ex Buch-Ham.

Vernacular name: Jeuta (O), Dephal, Dahua (Beng.); Barhal, Lakuch (H); Monkey Jack (E).

Moderate-sized tree with dense crown. Branchlets villously-tomentose. Leaves elliptic or ovate, entire, obtuse or shortly acuminate, pubescent or tomentose both sides. Stipules lanceolate, villous, caducous. Male receptacle orange-yellow, spongy, ovoid. Syncarps (female receptacle) irregularly subglobose, yellow when ripe.

Very often planted in gardens; fruits edible.

Flowering : December - April

Fruiting : October - November



Ficus benghalensis Linn.

Vernacular name : Bara, Bata (O); Bar (Beng.,H); Bargad, Bargat (H); Banyan Tree (E).

Large tree, epiphytic when young; branches sending down roots which form into accessory trunks. Leaves approximate near the ends of the branchlets, ovate to elliptic, coriaceous, young softly pubescent and often reddish, base rounded or subcordate. Figs sessile, in pairs, globose or subglobose, scarlet when ripe.

Fairly common but sparsely distributed in forests, scrub jungles, village commons and also planted in temple premises, road sides etc.

Flowering : Through out the years; figs & Fruiting ripening in April-June.



Ficus benjamina Linn. var. *nuda* (Miq.) Barrett (Syn: *Ficus comosa* Roxb.)

Vernacular name: Jili pukar (Beng.); Jili (H).

Large glabrous tree with the slender drooping branches. Leaves elliptic-oblong, ovate-oblong, broadly elliptic or ovate, abruptly acuminate, glabrous. Stipules linear-oblong, acuminate. Figs mostly terminating or towards the ends of the branchlets, geminate, axillary, sessile, globose, glabrous, yellow when ripe.

Often planted in gardens, parks and road sides.

Flowering : February - June
& Fruiting



Ficus hispida Linn.f.

Vernacular name : Dimiri, Kharsan, Baidimiri (O); Dumoor (Beng.); Kagsha, Daduri, Kat gulasia (H); Hairy Fig (E).

Small tree. Branches hispid with hollow internodes. Leaves mostly opposite, obovate, obovate-oblong or ovate-oblong, large, toothed, rarely entire, obtuse or obtusely acuminate, hispid on both sides. Figs numerous, fascicled on both the trunk and branches, often on leafless drooping branches, sometimes axillary, globose, yellowish when ripe, tomentose.

Very frequently occur along water bodies; also in waste places and scrub jungles.

Flowering : November - July
& Fruiting



Ficus racemosa Linn. (Syn: *Ficus glomerata* Roxb.)

Vernacular name: Pani Dimiri, Dumri (O); Gular (Beng.,H).

Large or moderate-sized tree with few aerial roots. Leaves ovate-lanceolate or elliptic, acute or subacute, dark green above, paler beneath. Figs on short or sometimes leafless, scariously bracteolate, tubercled and warted branchlets from the main trunk or larger branches. Figs occasionally axillary, globose to pyriform, red when ripe, pubescent or tomentose.

Rare, along water courses in forests and near villages.

Flowering : March - June
& Fruiting



Ficus religiosa Linn.

Vernacular name: Aswatha, Usta (O);
Asvatha, Ashathwa (Beng.); Pipal (H);
Peepal (E).

Large tree, epiphytic when young. Bark grey, smooth, irregularly pitted when old. Leaves more or less pendulous, broadly ovate, margin often repand, very long-caudate, coriaceous, dark green and shining above. Figs axillary, geminate, sessile, depressed-globose, smooth, glabrous, dark purple when ripe.

Commonly planted and also wild; young plants are epiphytic on other trees, walls and buildings.

Flowering : June - October
& Fruiting



Ficus tinctoria Forst. f. subsp.
parasitica (Willd.) Corner

Vernacular name: Jhirang (O).

Tree; bark greyish or yellowish-green. Leaves rhomboid, subelliptic or rhombic-ovate, usually oblique, margin thickened, apex rounded or obtuse, scabrous. Figs mostly paired, axillary and from leaf scars, subglobose, umbonate, pubescent or hispid, contracted into a stipe, with 3 small connate bracts at its base.

Common in the forests, epiphyte on a number of trees.

Flowering : November - April
& Fruiting



Plecosperrum spinosum Trecul.

Vernacular name : Banabanaka, Banabana (O).

Large thorny shrub with milky sap, often climbing by means of thorns. Leaves elliptic, obovate, oblanceolate-oblong, obtuse, subobtuse or rarely acute, glabrous, midrib strong, secondary nerves 6-8. Flowers yellowish-white, nearly sessile, with minute bracteoles; female heads with long protruding styles. Syncarp bluish-green, subglobose, velvety-tomentose.

Fairly common in thorny scrub forests in open situations.

Flowering : January - April
& Fruiting



Streblus asper Lour.

Vernacular name: Sahada, Sahara (O); Shiora, Sehora (Beng,H); Siamese rough bush (E).

Small tree; bark rough, light grey. Leaves very shortly petioled, obovate or rhombic-elliptic, obscurely toothed, acute, subacute or acuminate, stiff, scabrid on both sides, secondary nerves 7-9. Male heads on 1-3-nate peduncles, stamens whitish, exceeding the perianths. Female flowers with 2-3 imbricating bracts. Fruit yellow, succulent, globose.

Very common in scrub forests, waste lands, near water bodies and in hedges.

Flowering : March - April
Fruiting : May - June



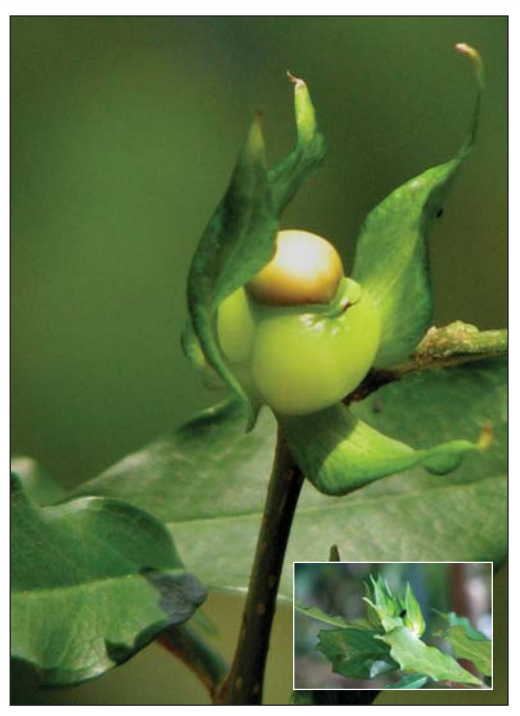
Streblus taxoides (Heyne ex Roth)
Kurz

Vernacular name : Jhumpuri, Phutkuli (O).

Small evergreen tree or shrub; branchlets terminating in a sharp thorn. Leaves oblanceolate, rhomboid-elliptic, irregularly toothed. Male heads ovoid, sessile; involucre bracts many, imbricate. Female heads sometimes 2 together; fruiting tepals erect and conniving over the fruit, lanceolate. Fruit ovoid, splitting into 2 valves when ripe.

Occasional, in damp forests and scrub jungles under shade.

Flowering : March - June
& Fruiting



URTICACEAE

Boehmeria macrophylla Hornem.
(Syn: *Boehmeria platyphylla* D. Don)

Spreading shrub, 1-2 m tall, branches strigose, especially at the nodes. Leaves opposite or rarely the upper alternate, unequal in each pair, broadly ovate, dentate, crenate-serrate, acuminate, hispid above, hairy on nerves beneath, base cordate or sub-cordate. Flowers monoecious; males in branched spikes from lower axils; females minute, in close clusters on long erect or drooping spikes.

Frequent in damp forests in shady localities; often under dense shade of trees.

Flowering : September - March
& Fruiting



Elatostema cuneatum Wight

Small annual, pubescent herb. Leaves alternate, sessile or shortly petioled, falcately obovate, crenate-serrate, apex subacute, obtuse or rounded, pubescent or puberulous. Flowers greenish. Female receptacles sessile, solitary at each node. Achenes ellipsoid, ribbed, yellow.

A characteristic species of moss-covered rocks, walls, steep slopes of hills under shade.

Flowering : August - November
& Fruiting



Laportea interrupta (Linn.) Chew [Syn: *Fleurya interrupta* (Linn.) Gaud.]

Vernacular name: Ghoda bichhuati, Lal Bichhuati (O); Lal-bichua (Beng.,H).

Erect or suberect herb, with stinging hairs, stem and leaf rachis reddish. Leaves ovate, coarsely dentate-serrate or crenate-serrate, acuminate, sparsely pubescent. Flowers clustered on axillary spikes; male and female flowers often in the same clusters. Ripe achenes exserted, compressed, with 3 marginal ridges.

Found in shady moist localities in gardens; also on rock surfaces and hill slopes under shade.

Flowering : August - October
& Fruiting



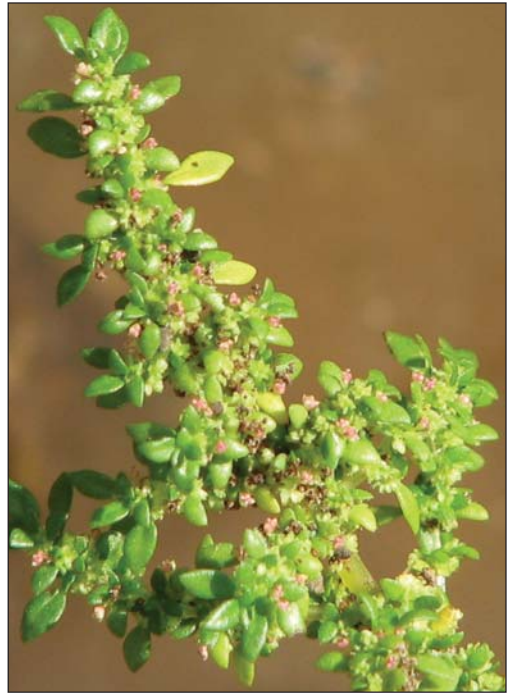
***Pilea microphylla* (Linn.) Liebm.**

Vernacular name: Gunpowder plant (E).

Small prostrate or diffuse succulent herb. Leaves distichous, very small, unequal in each pair, elliptic-oblong, obovate, orbicular or spatulate; entire; obtuse, glabrous. Cymes very small, from nearly every axil, usually sessile, androgynous or unisexual. Male tepals mucronate. Median tepal of the fruiting flower hooded. Achene ovoid, compressed.

Fairly abundant in moist places, rock crevices, on dilapidated walls and buildings.

Flowering : Most part of the year.
& Fruiting



***Pouzolzia zeylanica* (Linn.) Bennett**
[Syn: *Pouzolzia indica* (Linn.) Gaud.]

Erect or procumbent herb with creeping rootstock. Stems more or less hairy. Leaves ovate, ovate-lanceolate or lanceolate, smaller upwards, pubescent, 3-nerved. Flowers axillary in a cluster. Male flowers 4-merous, reddish. Female tepals oblong; fruiting tepals with 4 larger and 2 smaller wings; stigma feathery. Achenes enclosed.

Common among bushes and hedges in shady moist situation; also on field bunds and scrub forests.

Flowering : August - November
& Fruiting



CASUARINACEAE

Casuarina equisetifolia Linn.

Vernacular name: Jhaun, Jhabuka (O); Bilati-jhau-jhau (Beng.); Beef wood (E).

Large straight tree with drooping branches; bark brown, rough, peeling of in vertical stripes. Leaves scale-like. Male spikes usually numerous at the ends of the same branches on which the females are borne lower down, slender, cylindric. Flowering female heads ellipsoid, tomentose, terminating short lateral branchlets below the male branchlets. Fruiting head cone-like, achenes enclosed within; seeds winged.

Planted in the gardens as individual trees or as hedge plants; widely planted along the coast.

Flowering : April - May

Fruiting : May - June



ANGIOSPERMS

(Monocotyledons)

CERATOPHYLLACEAE

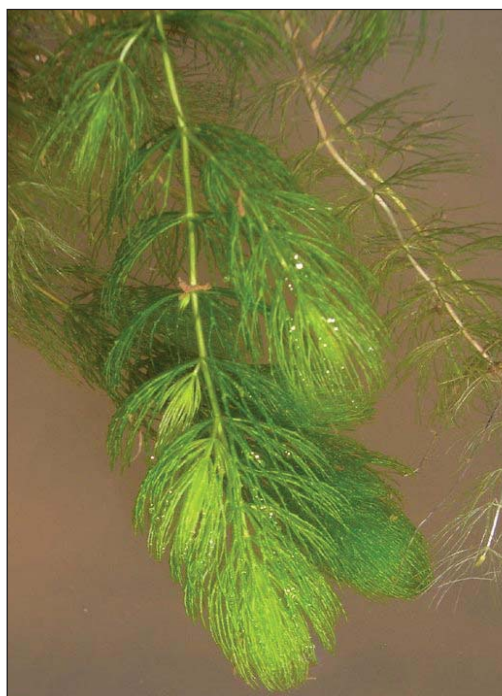
Ceratophyllum demersum Linn.

Vernacular name: Chingudia Dal (O); Sheoyala, Jhangi (Beng.); Sivara (H).

Submerged slender aquatic herb, densely leafy. Leaves whorled, mostly 2-times forked; segments filiform, denticulate on outer edges. Flowers minute, axillary; male and female flowers in separate axils. Stamens 10-30 in male flowers, anthers large, white. Ovary 1-celled, translucent, ovule visible. Nut pedicelled, ellipsoid, appendaged.

Abundant in still water of lakes, ponds and ditches.

Flowering : January - March
& Fruiting



HYDROCHARITACEAE

Blyxa echinosperma (C. B. Clarke)
Hook. f.

Submerged stoloniferous, monoecious, acaulescent, densely tufted herb. Leaves radical, sheathing at base, very finely acuminate, with 5 prominent parallel nerves. Flowers bisexual, 1 in each spathe, on long scapes. Spathe linear, opening by a slit on one side, produced above the flower. Fruit linear, very slender, included in the spathe; seeds spinescent, tailed.

Fairly common in deep water lakes and ponds.

Flowering : November - February
& Fruiting



Hydrilla verticillata (Linn. f.) Royle

Vernacular name: Chingudia Dal (O);
Kureli, Jhangi (Beng.,H).

Submerged, weak aquatic herbs, suspended under water. Stems slender, branched, roots fibrous. Leaves short, 3-4-nately whorled, linear or rarely narrowly elliptic, spinulose serrate, spreading, with recurved tips. Male flowers sessile at the base of each leaf. Female flowers sessile, solitary, in a cylindric spathe. Fruits subulate.

Abundant in ponds, lakes, ditches, rice fields and other stagnant water bodies.

Flowering : October - January
& Fruiting



Nechamandra alternifolia (Roxb.)
Thw. [Syn: *Lagarosiphon alternifolia*
(Roxb.) Druce]

Submerged perennial aquatic herb. Stems elongated, filiform, ascending through water to various lengths. Leaves alternate, sessile, linear or linear-lanceolate, often twisted. Flowers dioecious; male minute, densely crowded in axillary 2-fid spathe. Female flowers solitary, axillary, sessile; perianth-lobes spreading, orbicular, ovary long, stigma papillose.

Occasional, a submerged aquatic herb in ponds, lakes and tanks.

Flowering : October - February
& Fruiting



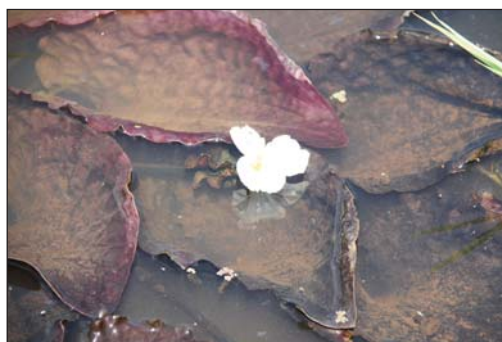
Ottelia alismoides (Linn) Pers.

Vernacular name: Pani Kunduri (O);
Parmikalla (Beng.).

Submersed rooted aquatic herb. Submerged leaves shortly petioled, usually narrow or oblong with tapering base; floating leaves oblong, broadly ovate or orbicular, margin undulate, apex obtuse or rounded, 7-11-nerved, base cordate. Petals white, obovate or orbicular with fleshy basal appendages. Fruit oblong, crowded with withered perianths, 6-grooved/ winged.

Quite abundant in stagnant water bodies, rice fields and slow-running streams.

Flowering : September - February
& Fruiting



Vallisneria natans (Lour.) Hara
(Syn: *Vallisneria spiralis* auct. non
Linn.)

Vernacular name: Syala, Sawala, Jallil
(H); Eel-grass, Tape grass (E).

Sumberged tufted acaulescent herb; roots
fibrous. Leaves radical, linear, ribbon
shaped, size depending on the depth of
water, wavy, translucent, entire or tips
serrulate, apex acute, nerves 5. Male
spathe shortly peduncled, sepals
recurved. Female spathe with flowers to
1.5 cm long, spathe investing the ovary
almost upto the base of the spreading
sepals. Fruit linear, 5-10 cm long.

Common aquatic plant at the bottom of
ponds, lakes, slow running rivers and
canals.

Flowering : October - April
& Fruiting



ORCHIDACEAE

Spiranthes sinensis (Pers.) Ames.
[Syn: *Spiranthes australis* (R. Br.)
Lindl.]

Herb with several fascicled tubes. Leaves
usually clustered near the base of the
stem, linear-lanceolate, narrowly oblong
or oblanceolate, acute or obtuse, shortly
sheathing. Flowers pink, in glandular-
pubescent secund spikes, rachis spirally
twisted; median sepal adnate to the
petals, lateral obliquely lanceolate, 1-
nerved, parallel to the lip. Petals linear,
lip yellowish, sessile.

Rare, along the swamps and marshes in
association with grasses and sedges.

Flowering : January - February
& Fruiting



Vanda tessellata (Roxb.) Hook. ex G. Don (Syn: *Vanda roxburghii* R. Br.)

Vernacular name: Malang (O), Rasna (O, Beng., H).

Epiphytic herb. Leaves linear-oblong, conduplicate, keeled, apex praemorse, 3-toothed, all teeth acute or 2 rounded. Flowers greenish-yellow, brown-tessellated, bracts suborbicular; sepals obovate, spreading; petals shorter; lip half as long to nearly as long, side lobes erect, ovate, small, acute, midlobe twice as long, panduriform, violet or crimson with dilated, truncate 2-lobed tip; disc with fleshy ridges; spur straight, conical, obtuse. Capsule oblong.

Common epiphyte on trees like *Mangifera indica*, *Diospyros melanoxylon* etc.

Flowering : March- May
Fruiting : May - March



ZINGIBERACEAE

Costus speciosus (Koenig) Sm.

Vernacular name: Gaigobra, Kaukauka, Keukanda (O); Kust, Keu (Beng., H).

Tall fleshy herb. Leaves elliptic-oblong, oblanceolate-oblong, or obovate-oblong, acute, acuminate or obtusely acuminate, fleshy, glabrous above, pubescent and paler beneath. Flowers white, very large, in dense terminal spikes, bracts red, ovate, obtusely apiculate, glabrous; labellum suborbicular. Fruit globose or ovoid, tardily dehiscent capsule.

Fairly common in shady moist locality, field bunds and forest edges.

Flowering : July - December
& Fruiting



***Globba marantina* Linn. (Syn: *Globba bulbifera* Roxb.)**

Vernacular name: Chhota Rasna (O).

Slender herbs, erect or inclined. Leaves distichous, elliptic-oblong or oblong-lanceolate, long acuminate, glabrous above, pubescent beneath. Flowers yellow, in simple spikes; bracts folded, persistent, rhomboid-ovate; lower bracts bearing a solitary bulbil in place of a flower. Petals and staminodes reflexed; dorsal petal boat-shaped, lateral anthers petaloid, anthers with 2-fid wings. Capsule rugose.

Occasional as undergrowth in shady moist localities under trees.

Flowering : September - December.
& Fruiting



***Globba racemosa* Sm. (Syn: *Globba orixensis* Roxb.)**

Herb, upto 1m high; stem erect or inclined. Leaves oblong, elliptic oblong or ovate-oblong, acuminate, glabrous above, softly pubescent beneath. Panicle narrow, sometimes pubescent lowest branches 3-flowered; bracts very caducous, narrowly oblong. Flowers yellow or orange-yellow; corolla-tube 2-3 times the length of calyx. Capsule verrucose; seeds tomentose;

Quite abundant in forest floors and shady places during post-monsoon period.

Flowering : July - December
& Fruiting



AMARYLLIDACEAE

Crinum asiaticum Linn.

Vernacular name: Arsa (O); Bara kanur, Nagdaun (Beng.); Kanwal, Pindar, Hathi kanda (H).

Robust bulbous herb, upto 1 m tall. Leaves large, sheathing at base, oblong-lanceolate or linear-lanceolate, over 10 cm wide, apex shortly acuminate. Scape 40-90 cm long, compressed; spathe bracts 2, lanceolate, bracteoles filiform. Flowers white, in 10-30 flowered umbels; perianth salver-shaped; stamens spreading, recurved. Fruit broadly ellipsoid or globose, few-seeded.

Occasional along the bank of water bodies and rice fields; also grown in gardens.

Flowering : Most part of the year.
& Fruiting



AGAVACEAE

Agave americana Linn.

Vernacular name: Muruga, Baramasia, (O); Bilati pat, Jungli anaras (Beng.); Bara kanwar, Kantala (H); Century plant, American Aloe (E).

Stout rhizomatous shrub; stem short, concealed by leaf-bases. Leaves in lax rosette, stout, lanceolate or oblong-lanceolate, tapering at both ends, margins distinctly sinuate and bearing dark-brown spines on the eminences. Flowers amber-coloured, crowded and fascicled at the ends of the subsidiary ascending branches; scape with panicle 4-7 m long. Capsule bluntly 3-gonous or oblong-cylindrical.

Cultivated and naturalized in garden as an ornamental plant, also grown in forests.

Flowering : March - June
& Fruiting



Sansevieria roxburghiana Schult. & Schult. f.

Vernacular name: Murga, Gada (O), Gorachakra (Beng.), Indian Bowstring Hemo (E).

Erect fleshy herb with tufted leaves, rhizome horizontal, creeping. Leaves linear-oblong, flat but convex on lower surface, green and transversely marked by darker bands on both surfaces. Raceme strict, dense. Flowers white, tubular, clusters of 2-4 on small tubercles; bracts scarious. Fruits membranous, indehiscent; seeds 1-3, large, globose.

Locally gregarious on sand-stone hills under heavy shade.

Flowering : June - July

Fruiting : December - February



HYPOXIDACEAE

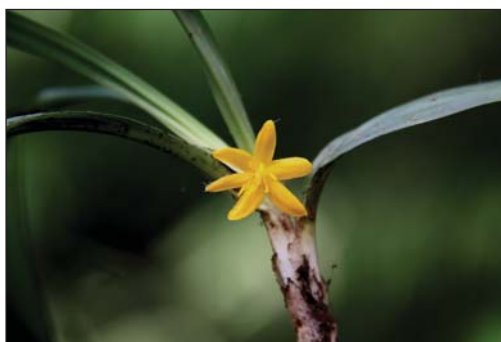
Curculigo orchioides Gaertn.

Vernacular name : Talamuli (O, Beng.); Kali Musli (O, H).

Stemless, perennial herb; rootstock of elongate, black tuber. Leaves linear-oblong, or linear-lanceolate, acute, plicate, glabrous or more or less pilose, sessile. Flowers yellow, 1-few, hairy, in very short scape, hidden among the bases of leaves. Fruit subulate to ovate, fleshy; hypanthium produced above the ovary into an elongated beak, 1-4-seeded. Seeds black, shining.

Quite common on forest floors and shady moist localities

Flowering : April - September
& Fruiting



Molineria capitulata (Lour.) Herb.
[Syn: *Curculigo capitulata* (Lour.)
Kuntze; *Curculigo recurvata* Dryand]

Stout herb. Leaves plicate, palm-like, lanceolate or broadly lanceolate, curved, channelled and hairy below. Flowers yellow, several in dense, cernuous heads, on compressed villous scape; bracts ovate-lanceolate, acuminate, more or less hairy. Hypanthium not produced above the ovary. Fruit globose, hairy; seeds black, deeply and closely grooved.

Common as an ornamental potted plant; wild along streams in forests.

Flowering : April - June
& Fruiting



DIOSCOREACEAE

Dioscorea oppositifolia Linn.

Vernacular name : Pani Alu, Pithalkanda, Pitli Kanda (O).

Stem twining to the right, often purplish when young, swollen at the nodes, unarmed, sparingly pubescent. Leaves all opposite, oblong, ovate-oblong or elliptic, acuminate or obtuse, cuspidate. Flowers sweet-scented, yellow-green, bracts deflexed, suborbicular cuspidate. Female flowers distant in solitary or fascicled spikes. Capsule glabrous, facing forward, with depressed base and apex.

Frequently in moist forests and thorny scrub jungles; tubers are edible.

Flowering : August - September
Fruiting : November



Dioscorea pentaphylla Linn.

Vernacular name : Karaba, Pittalo kanda, Karaba Alu (O); Saurahi (Beng.); Bhusa, Gazaria (H).

Stem twining to the left, slender, prickly towards the base, often bearing axillary bulbils. Leaves 3-5-foliolate, rarely few of the upper leaves simple, glabrous or rusty pubescent beneath. Male spikes 1-2-nate in long axillary or terminal panicles; flowers shortly pedicelled or sessile above the bract. Female spikes long and solitary or 2-3-nate, rarely paniced. Capsule oblong, deflexed, glabrous or densely pubescent.

Quite common in scrub forests, village hedges and thickets during post-monsoon period.

Flowering : October - December
& Fruiting



Dioscorea wallichii Hook. f. (Syn: *Dioscorea aculeata* Linn.)

Vernacular name: Pita Alu (O).

Climbers, stem twinning to the right, glabrous, often prickly below, characterised by the hard, thick spinous bases of petioles. Leaves alternate, large, sub-orbicular, broadly ovate or ovate-oblong, coriaceous; costae 9, of which 3-5 reach the apex, base cordate. Male spikes lax, 2-3-nate on the branches of compound panicles. Female spikes paniced on abbreviated lateral branches. Capsule obovate, facing forwards, depressed at apex; seeds winged.

Abundant in scrub forests and thickets.

Flowering : October - November
Fruiting : December - February



LILIACEAE

Asparagus racemosus Willd.

Vernacular name: Chhatuari, Satabari, Iswar jata, (O); Satamuli (Beng.), Satawar (H).

Slender, scrambling or scandent perennial undershrub. Stem angular, with strong, straight or decurved spines. Rootstock with fleshy elongate tubers. Leaves reduced to more or less acicular and 3-quetrous cladodes. Flowers bisexual, white, sweet-scented; pedicels filiform. Fruit globose, pulpy berries, 3-celled, scarlet when ripe; seeds 1-6.

Fairly common in dry forests, scrub lands, hedges and bushes.

Flowering : September - October

Fruiting : November - December



Gloriosa superba Linn.

Vernacular name : Agnisikha, Pancha angulia, Kalihari, Dasara Phula (O), Ulat chandal, Kariari (Beng.); Languli, Kulhari, Kaliari(H); Malabar Glory Lily(E).

Climbing or scrambling, glabrous herb with tuberous rootstock. Leaves sessile or subsessile, lanceolate or linear to ovate-lanceolate, parallel-nerved each side of the midrib, apex circinate. Flowers solitary axillary on reflexed pedicels; tepals linear, beautifully waved and crisped, lower half yellow, upper half red, finally the whole turning more or less red. Fruit large, oblong, septicidal capsule; seeds orange-red.

Occasional in scrub forests and on bushes and hedges.

Flowering : September - November

Fruiting : November - December.



SMILACACEAE

Smilax zeylanica Linn. (Syn: *Smilax macrophylla* Roxb.)

Vernacular name: Muturi, Ramdatuni (O); Kumarika (Beng.); Jangli Aushbah, Chobchiri (H).

Stout, prickly climber. Branches terete or with 4 lines or more or less 4-angled, striate when dry. Leaves ovate-oblong, elliptic, broadly elliptic, orbicular, ovate-lanceolate, obtuse or rounded, base rounded or subcordate, sometimes suddenly acute and decurrent on petiole. Flowers dioecious, umbellate, white; umbels 1-3, rarely 5, in axillary short cymes. Berry globose, 1-3-seeded.

Very common in thorny scrub forests and in bushes and thickets.

Flowering : April - July

Fruiting : October - January



PONTEDERIACEAE

Eichhornia crassipes (Mart.) Solms.

Vernacular name : Bilatidala (O); Kachuripana (Beng.); Water-hyacinth (E).

Floating aquatic herb with a very short leafy main-stem, sending down a large bunch of long fibrous roots; sometimes rooting in the mud. Leaves radical rosulate, emerged, petiole spongy, blade broadly ovate or rhomboid, very obtuse, finely and densely curvined. Flowers lilac or pale violet, funnel-shaped, 8-35 in a spike, usually simultaneously flowering, trimorphic. Fruit a membranous, ovoid-oblong capsule.

Gregarious and troublesome weed in stagnant and slow-moving water bodies and rice fields.

Flowering : Most part of the year.
& Fruiting



Monochoria hastata Solms-Laub.
(Syn: *Monochoria hastaeifolia* Presl)

Aquatic herb with erect or suberect stems. Leaves triangular-ovate with a sagittate or hastate or very rarely cordate base, acute or obtuse, many-nerved, basal lobes divergent, mostly with acuminate, narrowed or rarely rounded apex. Inflorescence shortly racemed or subumbellate. Flowers pale blue. Capsule enclosed in the persistent twisted perianth, subglobose or oblong.

Common in shallow and stagnant water bodies, margins of lakes, ponds, canals and in paddy fields.

Flowering : April - September
& Fruiting



Monochoria vaginalis (Burm.f.) Presl

Vernacular name : Mirmira (O); Nukha, Nanka (Beng.).

Aquatic herb with erect or suberect stems; rootstock usually very short. Leaves very variable, broadly ovate, ovate-oblong, linear or lanceolate, acuminate or very acute, base obtuse, rounded, truncate or cordate. Flowers lilac blue, in 3-25-flowered racemes, mostly simultaneously expanded, reflexed after flowering. Capsule oblong, membranous, loculicidally dehiscent into 3 valves; seeds tiny, brown, ribbed.

Frequent in muddy places, swamps, rice fields and along margins of pools and lakes.

Flowering : April - September
& Fruiting



XYRIDACEAE

Xyris indica Linn.

Erect tufted, scapigerous herb. Leaves radical, elongate, obtuse or acute. Scape terete, ridged; head ovoid, globose; bracts imbricate, dark red brown, shining, orbicular or cuneately obovate, margin scarious. Flowers yellow; lateral sepals narrowly boat-shaped with dorsal serrulate wing; throat of corolla not bearded; petals orbicular, erose, claw as long as sepals. Fruit 3-valved, loculicidal capsule.

Locally gregarious in rice fields, ditches, swamps and other marshy localities.

Flowering : October - February.
& Fruiting



COMMELINACEAE

Commelina benghalensis Linn.

Vernacular name : Kanasiri, Kanisiri, Ranasiri (O); Kanchira, Kanchara (Beng., H).

Diffuse, branched, subsucculent herb. Stem often creeping and rooting below, often pilose below the nodes. Leaves ovate, elliptic-ovate, oblong or suborbicular, often inequilateral, obtuse, acute or rounded at the tip, pubescent or villous; margin often undulate. Sheaths pubescent or villous and usually with long hairs at mouth. Flowers small, blue, in 2-nate cymes. Capsule membranous, pyriform, 2-seeded.

A common weed of wastelands, cultivated fields and forest floors.

Flowering : August - December
& Fruiting



Commelina erecta Linn. (Syn: *Commelina kurzii* C.B.Clarke; *Commelina undulata* R. Br.)

Vernacular name : Kanisiri, Kanyari (O).

Hairy or glabrous herb; stem 1-2 ft tall. Leaves lanceolate-oblong or narrowly lanceolate, acute to acuminate, hoary-pubescent, hirsute; sheaths hoary-pubescent or ciliate. Spathes sessile or nearly so, solitary or clustered, cucullate, recurved. Flowers violet or blue. Capsule 3-celled, 2-valved, the dorsal cell indehiscent, deciduous and scabrid.

Abundant in shady moist localities, forest floors and field bunds during rains.

Flowering : August - December
& Fruiting



Commelina longifolia Lam.

Vernacular name: Pani Kansiri (O); Panikanchira (Beng.); Jal pipari (H).

Decumbent herb with long internodes. Leaves sessile, linear or linear-lanceolate, glabrous or a little hispid on the upper side and margins; sheaths ciliate. Spathes peduncled, axillary, solitary, complicate, lanceolate or ovate, acute, acuminate. Flowers blue, small, 1-2 on the equal exerted cyme branches. Capsule oblong, shortly suddenly acute, 3-celled.

Occasional, in rice fields, along swamps, lakes and canals.

Flowering : September - January
& Fruiting



Commelina paludosa Bl. (Syn: *Commelina obliqua* Buch.-Ham ex D. Don)

Stout herb with branched straggling stems. Leaves sessile or shortly petioled, very variable, lanceolate or elliptic-lanceolate, acute or caudate, glabrous, pubescent or villous beneath. Spathes sessile, in crowded heads, rarely solitary, funnel-shaped, margins connate on both sides. Flowers blue. Capsule obovoid-trigonal, 3-valved; seeds oblong or ellipsoid, smooth.

Fairly common weed in damp places and rice fields.

Flowering : August - November.
& Fruiting



Cyanotis cristata (Linn.) D. Don.

Ascending herb. Stem slender, creeping below, glabrous or with spreading hairs, internodes long. Leaves rather distant, sessile, oblong or ovate-oblong, obtuse or subacute, fleshy, base rounded or cordate; sheath short, hirsute. Flowers blue, in axillary and terminal scorpioid cymes; cymes recurved, formed by imbricate, biseriate, foliaceous bracteoles; bracts exceeding cymes. Fruit 3-celled, 3-valved capsule.

Quite common in shady moist localities, crevices of rocks, dilapidated buildings, walls and damaged tree trunks.

Flowering : September - November
& Fruiting



Murdannia nudiflora (Linn.) Brenan
[Syn: *Aneilema nudiflorum* (Linn.) R. Br.]

Vernacular name: Kanduli (Beng.).

Decumbent herb, glabrous or sometimes hairy with many slender branches. Leaves linear or linear lanceolate, acute, acuminate or subobtuse, base narrowed, rounded or cordate; sheaths open, margin ciliate. Flowers small, blue or purplish, in terminal or leaf-opposed, few-flowered cymes. Capsule broadly oblong-ellipsoid, mucronate, 3-celled; cells of ovary 2-ovuled.

Fairly common weed of wastelands and moist localities.

Flowering : August - November
& Fruiting



Murdannia spirata (Linn.) Brueck.
(Syn: *Aneilema spiratum* R. Br.)

Procumbent or ascending, much-branched slender herb; roots fibrous. Leaves sessile or amplexicaul, oblong or ovate-oblong, acute or subacute, glabrous, margins thickened; sheaths short, with pubescent edges. Flowers small, violet or blue, in axillary and terminal panicles scorpioid cymes with zigzag rachis. Capsule oblong, trigonous, seeds 3-7 and 1-seriate in each cell.

A common weed in sandy moist places and margins of water bodies.

Flowering : September - December
& Fruiting



Murdannia vaginata (Linn.) Brueck.
[Syn: *Aneilema vaginatum* (Linn.) R.
Br.]

Glabrous diffuse herb, branched from near the base, rooting at the nodes; roots fibrous. Leaves sessile, linear, acute or acuminate; sheaths short, open, pubescent. Flowers small, blue, solitary or 2-4(6)-fascicled in the axils of persistent, usually distant, convolute bracts; pedicels slender, twice-jointed. Capsule subglobose, glabrous, 3-celled; cells 1-celled; seeds hemispheric, black, rugose.

Quite common in damp places and grassy lands.

Flowering : July - October
& Fruiting



Tonningia axillaris (Linn.) Kuntze
[Syn: *Amischophacellus axillaris* (Linn.)
Rao & Kamm.; *Cyanotis axillaris*
(Linn.) Schult. & Schult.f.]

Vernacular name: Godhuli (O); Soltraj,
Baghanulla (H).

Sub-erect or prostrate herb, creeping at base, subsucculent. Stem glabrous or sparsely hairy. Leaves linear, acuminate, glabrous or sparsely hairy, somewhat fleshy; sheaths short, inflated, glabrous or mouth ciliate. Cymes reduced to axillary fascicles enclosed in leaf-sheaths. Flowers blue, 1-6 in each axil; bracteoles linear-lanceolate, almost hidden, glabrous or minutely ciliate. Capsule glabrous, acute, 6-toothed or lobed.

Abundant in wet places, rice fields, along ponds, lakes and canals; also found on dilapidated walls and buildings.

Flowering : July - January
& Fruiting



ARECACEAE

Borassus flabellifer Linn.

Vernacular name: Tala (O); Tal (Beng.); Tar (H); Palmyra Palm (E).

Large tree, 10-30 m tall; stem greyish-black, marked with sheath scars. Leaves almost circular, margins split into 60-80 linear-lanceolate acuminate segments, folded; petiole stout, semi-terete, spiny along edges. Male spadix simply branched. Female flowers larger, globose. Fruit large, sub-globose drupe, with 1-3 fibrous pyrenes; pericarp thinly fleshy, seated on enlarged perianth.

Occasional in forests, planted and self-sown in field bunds and waste places close to villages.

Flowering : March - May

Fruiting : August - September



Calamus guruba Buch.-Ham.

Vernacular name : Kanta-beta (O).

Large climber. Stems covered with the leaf-sheaths, often glaucous, densely armed with flattened spines. Leaves shorter, with 30-40 close equidistant leaflets each side; leaflets dark-green, linear; rachis often produced to whip-like cirrus, armed with claws. Flowers small, creamish-white, polygamous, in pyramidal panicles. Fruit globose, scales yellowish-green with brown and scarios margins.

Common in scrub forests, along water bodies and in village thickets

Flowering : March - April

Fruiting : December



Caryota urens Linn.

Vernacular name: Salap, Salapa (O); Sago, Toddy or Fish-Tail Palm, Indian Sago Palm (E).

Stout, beautiful palm. Stem smooth, shining. Leaves very large, bipinnate; petiole very stout; curved, drooping; leaflets broadly cuneate, obliquely truncate or rounded. Flowers monoecious, ternate, a female between two males; male flowers 1.2cm long or more, female longer. Fruit globose, 1-2-seeded, reddish, acrid.

Occasional in scrub forests; frequently planted in gardens and roadsides.

Flowering : April - August
& Fruiting



Phoenix acaulis Buch.-Ham. ex Roxb.

Vernacular name : Bhuin khajuri (O); Pind khajur, Khajur, Jangli Khajur (H); Dwarf Date Palm (E).

Dioecious shrubs; stem very short, thick and ovoid, covered with the persistent petiole base. Leaflets stiff, more or less fascicled and in different planes, finely acuminate, lowest reduced to strong spines. Spadix 10-15 cm long in flower, elongating to 30-90 cm in fruit; flowers white. Drupe oblong-ellipsoid, orange or orange-red, finally black.

Rare, in thorny scrub forests and dry grassy forest floors.

Flowering : April
Fruiting : May - June



Phoenix sylvestris (Linn.) Roxb.

Vernacular name: Khajuri, Gachha Khajuri (O); Khajur (H, Beng.); Indian Date palm, Date sugar palm (E).

Tall palm; stem densely covered with the petiole-bases. Leaves greyish-green, leaflets much fascicled, with the fascicles, 2-4-farious, lowest modified into long spines. Male inflorescence white, scented, compact on a short peduncle; male flowers dense. Female flowers smaller, distant. Fruiting peduncle finally drooping. Drupes orange to reddish-brown, oblong-ellipsoid, flesh sweet.

Common in wastelands, roadsides and scrub forests; self-sown in open areas.

Flowering : April - May

Fruiting : June - September



PANDANACEAE

Pandanus fascicularis Lam. [Syn: *Pandanus odoratissimus* Linn.f.; *Pandanus tectorius* auct. non Soaland ex Parkinson]

Vernacular name: Kia (O); Keori, Kewa (Beng.); Kewda (H); Screw pine (E).

Bushy shrub or small trees, stem upto 3-4 m tall, with many thick terete aerial and stilt roots. Leaves closely spirally 3-fariously imbricate, ensiform, margins with forward pointing spinules. Male inflorescence sweet-scented, in cylindric spikes, enclosed in white spathes. Female spike stout, subtended by 3-fariously arranged white spathes. Syncarp ellipsoid, woody, drooping, deep-orange.

Locally gregarious along water bodies, swamps and in wastelands and village hedges.

Flowering : July - August

Fruiting : November - February



TYPHACEAE

Typha angustata Bory & Chaub.

Vernacular name : Hangla, Santara (O); Hogla (Beng.); Patera, Pater (H).

Tall, robust aquatic herb with creeping rhizome. Leaves linear, upto 8 ft long, narrower above the sheath, plano- or concavo-convex, spongy. Flowers monoecious, minute, in terminal superposed, dense cylindrical spikes, the upper spike male, lower of female flowers, often intermixed; bracts of female subspathulate, mixed with clavate tipped pistillode. Fruits minute, fusiform, membranous.

Quite abundant in marshes, swamps, margins of lakes, ponds, river beds and along streams.

Flowering : Through out the year.
& Fruiting



ARACEAE

Amorphophalus paeoniifolius (Dennst.) *Nicolson var. campanulatus* (Decne) Sivadasan (Syn: *Amorphophalus campanulatus* Decne)

Vernacular name : Olua, Olakanda (O); Ol (Beng.); Zaminkand, Ol (H).

Stout herb with depressed hemispherical tuber. Leaf 1 (rarely 2), 3-partite, lateral segments bifurcate, pinnatifid; mottled dark and light green. Spathe with a campanulate tube, suddenly widening into an irregular, spreading, plicate and undulate recurved limb; greenish and purple. Flowers monoecious, crowded in cylindrical masses, male and female portions contiguous or separated by few neuters. Fruiting spikes with red, obovoid berries, 2-3-seeded.

Fairly common in waste places and shady moist localities.

Flowering : April - June
Fruiting : November - January



Colocasia esculenta (Linn.) Schott
(Syn: *Colocasia antiquorum* Schott)

Vernacular name : Saru, Banasaru (O);
Kachu (H,Beng.); Taro, Cocoyam (E).

Tuberous herb; sometimes with stolons.
Leaves ovate, subtriangular or suborbicular, cordate, peltate, basal sinus triangular, margin often undulate; petiole stout, green or violet. Spathe peduncled, yellow, convolute, never widely open, curved slightly backwards in flower. Spadix much shorter than the spathe; male and female flowers with interposed neuters. Berries obconic.

Locally gregarious in damp and shady places, field bunds; widely cultivated for the edible tubers.

Flowering : June - November
& Fruiting



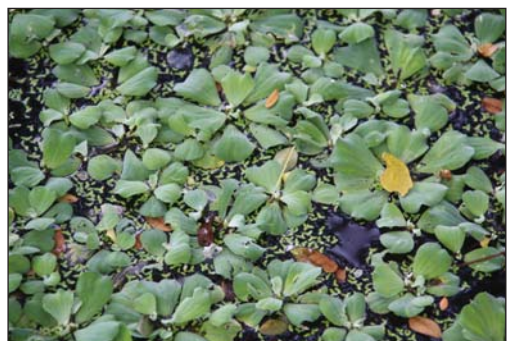
Pistia stratiotes Linn.

Vernacular name: Borajhanji (O);
Takapana (H, Beng.); Water lettuce,
Tropical Duck weed (E).

Small, floating, stemless but stoloniferous cabbage-like herb; roots tufted, fibrous. Leaves obovate-cuneate, very variable in shape and size, shallowly lobulate and undulate at apex, pubescent on both sides, nerves flabellate, raised beneath. Spathe shortly peduncled, pale yellow or white; spadix adnate to the back of the tube of the spathe; male flowers in a whorl of few connate stamens, females solitary. Berry ovoid with thin pericarp.

Gregarious in ponds, lakes, swamps and other stagnant water bodies; often rooted on marshy grounds.

Flowering : May - June
Fruiting : November - December



Scindapsus officinalis (Roxb.) Schott

Vernacular name : Gaja pipali, Girudhuni, Panchamula (O); Gaja pipal (Beng.); Pippal-jhanka, Bari pipli (H).

Large climbing shrub with fleshy roots; stem woody when old. Leaves large, entire, broadly elliptic or ovate, acuminate, rather fleshy, base rounded or subcordate; more or less dilated or broadly winged up to the knee. Spathe oblong, terminating in a long acumen, green outside, yellow within, deciduous. Spadix sessile, cylindric, shorter than spathe, dense-flowered. Berries confluent.

Frequent climber on trees; also on rocks in damp localities.

Flowering : June - July

Fruiting : January - February



Typhonium trilobatum (Linn.) Schott

Vernacular name: Anasaru (O); Ghetkachhu, Gherkachoo (Beng.).

Herb; tubers white, subglobose. Leaves, hastately 3-lobed or sub-3-partite; lobes ovate, acute. Spathe acuminate, tip straight or twisted, green or inside red-purple with broadly ovate open limb narrowed to a long point. Spadix exerted, with bright red, stipitate and muricate appendage; male and female flowers well separated with neuters. Berries ovoid, 1-2-seeded.

Locally abundant in shady moist places with adequate humus.

Flowering : July - September

Fruiting : October - November.



LEMNACEAE

Spirodela polyrhiza (Linn.) Schleiden
(Syn: *Lemna polyrhiza* Linn.)

Small floating aquatic plants. Fronds solitary or cohering in groups of 2-5, reniform to orbicular-ovate, base obtuse, apex obtuse or round, dorsal side flat, smooth, ventral side flat to strongly inflated, green, nerves 7(-12). Stipe hyaline, prominent; dorsal scale membranous, orbicular to reniform, ventral scale membranous, broad. Budding pouches 2; inflorescence with 1 female and 2 male flowers. Fruit a 1-2-seeded utricle, slightly winged.

Very common in stagnant waters of lakes, ponds, pools and puddles.

Flowering : February - April
& Fruiting



Wolffia globosa (Roxb.) Hartog & Plas
(Syn: *Wolffia arrhiza auct. non* Horkel ex Wimmer)

Minute floating aquatic plants. Fronds elliptic to oblong, base and apex obtuse, margin with a few papillose cells, dorsal side flat near the apex and convex near the base, ventral side strongly inflated, globular, with large cells; width greatest below the dorsal plane. Budding pouch with a distinct collar of elongate cells. Inflorescence with 1 male and 1 female flower, with out spathe. Fruit globular.

Occasional, a floating aquatic plant in still waters.

Flowering : June - October
& Fruiting



ALISMATACEAE

Limnophyton obtusifolium (Linn.)
Miq.

Dwarf or robust succulent aquatic herb. Leaves broadly sagittate, reniformly sagittate to triangular, many-nerved, pellucid-punctate; basal lobes lanceolate. Flowers numerous, white, in whorls on the branches of a large panicle, pedicels filiform in flower. Achenes in a globose head, obovoid, turgid, shortly beaked.

Common in swamps, marshes and rice fields, also along margins of lakes and ponds

Flowering : February - July
& Fruiting



Sagittaria guayanensis H.B.K. subsp.
lappula (D. Don) Bogin (Syn: *Sagittaria*
guayanensis sensu Hook. f.)

Scapigerous aquatic herb. Roots fibrous, densely tufted. Leaves floating, broadly ovate, apex rounded or obtuse, nerves obscure, radiating, distinct when dry, base deeply cordate. Sheaths very broad, suddenly contracted into long, often hairy petiole. Flowers white. Achenes flat, surrounded by a broad, prominently toothed wing.

Occasional, in ponds, pools, lakes and ditches; sometimes in paddy fields.

Flowering : August - November
& Fruiting



Sagittaria trifolia Linn. (Syn: *Sagittaria sagittifolia* auct. non Linn.)

Vernacular name: Muya muya, Chhoto-kut (Beng.).

Scapigerous, aquatic, stoloniferous herb; stolon ending in a tuber. Leaves emerging and with a hastate or sagittate blade, acute or acuminate; petiole very spongy, 3-gonous. Flowers white with usually purple centre, sessile or shortly pedicelled; upper males with longer pedicels, in 3-5 whorls of 3-5 flowers. Achenes in a globose head, obliquely obovate, flattened, with broad, entire or subcrenate wings.

Occasional, in swamps, margins of ponds, pools and lakes.

Flowering : January - March
& Fruiting



POTAMOGETONACEAE

Potamogeton nodosus Poir. (Syn: *Potamogeton indicus* Roxb.)

Submerged, rooted aquatic herb; stem slender, terete, branched. Leaves all petioled, upper or all leaves floating, broad; floating leaves elliptic-lanceolate or oblong, shining, coriaceous, with strong mid-rib and 13-15 parallel nerves. Spikes dense-flowered, on axillary or leaf-opposed peduncle, spikes raised just above water surface. Flowers white. Fruits drupaceous with hard endocarp, truncate, shortly beaked.

Occasional, a submerged aquatic plant in fresh-water lakes and ponds, also in slow running waters.

Flowering : Most part of the year.
& Fruiting



APONOGETONACEAE

Aponogeton natans (Linn.) Engl. & Krause
(Syn: *Aponogeton monostachyon* Linn. f.)

Vernacular name: Ghechu, Jhechu (H).

Perennial aquatic plant with elongate tubers. Submerged leaves lanceolate, base and apex cuneate, tip blunt, midrib wide, with 2 or 3 parallel nerves on either side; floating leaves oblong, rarely linear-oblong, obtuse or acute, 3-7-nerved, base rounded, cordate or cuneate. Spike solitary, densely-flowered, cylindrical. Flowers bluish, pinkish or purplish. Fruits smooth, with a long terminal beak.

Fairly common in stagnant shallow waters, rice fields, ponds, ditches and margins of lakes.

Flowering : September-November;
& Fruiting also most part of the year.



ERIOCAULACEAE

Eriocaulon quinquangulare Linn.

Vernacular name: Phurki, Nakachana (O); Guri (Beng.).

Scapigerous herb. Leaves crowded in a rosette, linear-ensiform, often bright red when dry. Peduncles few or densely crowded, sheaths lax, shorter than the leaves. Heads white, globose or somewhat ovoid. Receptacle globose or columnar, sparsely pilose; involucre bracts obovate or oblong-oblancheolate, scarious, eventually reflexed; floral bracts hyaline, obovate or, oblancheolate. Seeds oblong-ellipsoid, pale-brown or yellow.

Quite common in wet places, rice fields and along the margins of ponds and lakes.

Flowering : August - February
& Fruiting



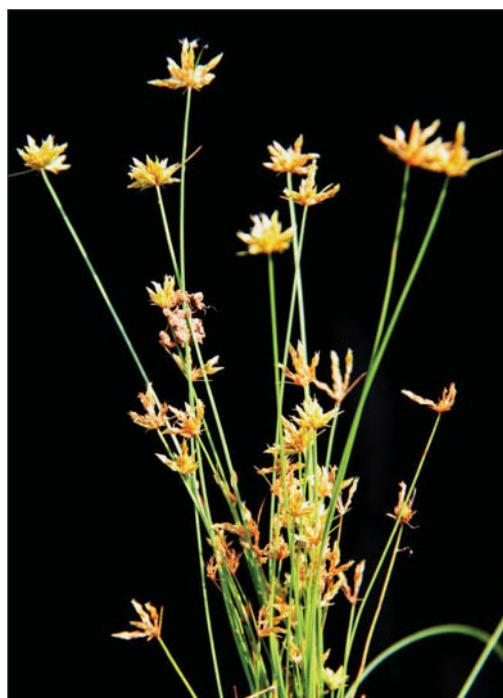
CYPERACEAE

Bulbostylis barbata (Rottb.)
C.B.Clarke

Small herb, setaceous, glabrous. Leaves as long as or shorter than the stems, capillary; sheaths pilose especially in the throat. Spikelets brown, sessile, linear to oblong, angled, in dense clusters at the top of the stem; involucre bracts 1-3, filiform, with dilated scarious base. Glumes triangular-ovate, membranous, mucronulate. Nut obpyramidal or obovoide, pale brown or yellow.

Fairly common in sandy soils and open wastelands.

Flowering : July - November
& Fruiting



Cyperus articulatus Linn.

Stout herbs; stem terete, septate, thickened below; stolons stout, covered by dark-coloured scales. Leaves reduced to sheaths or rarely with short foliaceous limbs. Inflorescence compound, primary rays upto 10; bracts 1-3, scale-like, triangular. Spikelets dense, linear; glumes imbricate, ovate or oblong, concave. Nuts narrowly oblong, trigonous, black, shining.

Occasional in rice fields and swamps.

Flowering : September - November
& Fruiting



Cyperus compressus Linn.

Vernacular name: Chancha (Beng.).

Annual herb; stems tufted, erect and diffuse, triquetrous. Leaves longer than the stems, rigid. Spikelets 3-many, in a simple terminal head or short spike or heads; involucre bracts 3-5, patent. Spikelets oblong to linear, much compressed, rachilla flexuous, persistent. Glumes more than half imbricate, ovate, chartaceous, strongly keeled, Nut. triquetrous or trigonous, obovoid-ellipsoid, shining brown or black.

Frequent in moist grassy lands, waste places and cultivated lands.

Flowering : July - December
& Fruiting



Cyperus cuspidatus Kunth (Syn: *Cyperus uncinatus* auct. non Poir.

Small, annual caespitose herb, with fibrous roots. Stem trigonous, smooth. Leaves narrow, often setaceous and shorter than the stem; sheaths membranous, striate, reddish-brown. Inflorescence simple, often reduced to a single head; involucre bracts few, filiform. Spikelets digitately arranged, linear, strongly compressed; glumes oblong-spathulate, emarginate at apex, mucro recurved, sides ferruginous-brown. Nut trigonous, obovoid, chestnut coloured.

Quite common in moist waste places and agricultural fields.

Flowering : September - November
& Fruiting



Cyperus difformis Linn.

Vernacular name: Suneli (O); Behua (Beng.).

Tufted annual herb; stems weak, triquetrous. Leaves shorter than the stem, several nerved, flaccid. Inflorescence simple or compound; involucre bracts 2-3, keeled; primary rays usually 5-9. Spikes globose, very dense, with numerous spikelets; spikelets stellately spreading, linear, compressed; glumes minute, orbicular. Nut unequally trigonous, broadly ellipsoid, pale brown or stramineous.

Common weed of wet grounds, rice fields and margins of water bodies.

Flowering : August - February
& Fruiting



Cyperus diffusus Vahl

Stout perennial herb with short rhizome. Stem tufted, trigonous below, triquetrous above. Leaves as long as or shorter than the stems, flat, flaccid, with 3 prominent nerves, abruptly acuminate. Inflorescence decomposed; involucre bracts 4-10, unequal, the larger ones overtopping the inflorescence. Spikelets digitately arranged, 3-9 together, turgid-compressed; glumes boat-shaped, mucronate. Nuts ellipsoid, triquetrous, dark brown.

Quite common in shady moist localities and damp forest floors.

Flowering : June - October
& Fruiting



Cyperus distans Linn. f.

Perennial herb with creeping rhizome; stems sub-caespitose, triquetrous. Leaves scabrous in the upper part; lower sheaths purplish. Inflorescence compound or decomposed, often large and open; involucre bracts 4-6(-8), spreading; primary rays 6-12. Spikes broadly ovoid-pyramidal; spikelets loosely spicately arranged, ultimately spreading at right angles; rachilla distinctly winged, persistent. Nuts trigonous, oblong-cylindrical, grey to black.

Frequently found near water bodies, rice fields and other wet habitats.

Flowering : August - November
& Fruiting



Cyperus halpan Linn.

Small tender herb; rhizome short, creeping. Stem tufted, slender, trigonous or triquetrous to almost 3-winged, smooth. Leaves flat; lower sheaths scarious, inflated, reddish. Inflorescence simple or compound; rays numerous, unequal; spikelets digitately arranged in clusters of 3-8, stellately spreading, linear-lanceolate; glumes suberect, oblong-ovate. Nut trigonous, obovoid, whitish or yellowish.

Abundant in wet places, margins of lakes, ponds and rice fields.

Flowering : July - November
& Fruiting



Cyperus imbricatus Retz. (Syn: *Cyperus radiatus* Vahl)

Perennial herb with very short rhizome. Stem robust, tufted, trigonous, upto 60 cm. Leaves about two-third as long as stem, canaliculate, scabrous on the margins, lower sheaths spongy, purplish-black. Inflorescence simple or compound; involucre bracts 3-5; primary rays 6-8, unequal. Spikes digitately arranged, cylindric, very dense; spikelets spicately arranged, oblong, imbricate. Nut ovoid to ellipsoid, trigonous, yellowish-brown.

Occasional in swamps, ditches and muddy margins of water bodies; no where common.

Flowering : July - November
& Fruiting



Cyperus iria Linn.

Vernacular name : Suanti (O);
Barachaneha, Burachucha (Beng.).

Non-rhizomatous herb; stems solitary or tufted, trigonous. Leaves basal, scabrous. Inflorescence simple or compound, loose; involucre bracts 3-5; rays many. Spikes narrow, oblong-ovoid, of 5-20 spikelets; rachis flexuous. Spikelets yellow or pale brown, spicately arranged, linear-oblong, obtuse; glumes orbicular-obovate, keeled, emarginate at apex. Nut as long as the subtending, glume, triquetrous or trigonous, obovoid, shining dark brown to black.

Quite common in rice fields, margins of water bodies and other wet places.

Flowering : August - January
& Fruiting



Cyperus pilosus Vahl

Perennial tall herb; rhizome sending slender stolons, clothed with scales. Stem robust, triquetrous above. Leaves often three-fourth as long as stem, with 3 prominent nerves, scabrous on margins. Inflorescence compound, variable in size and density; involucre bracts 4-5, foliaceous. Spikes ovoid; spikelets pale brown, elliptic to lanceolate. Nut triquetrous, ellipsoid, black.

Fairly common in wet habitats along lakes and pools, rice fields and swamps.

Flowering : August - December
& Fruiting



Cyperus polystachyos Roxb. [Syn: *Pycneus polystachyos* (Rottb.) P. Beauv.; *Pycneus odoratus* Urb.]

Tufted herb, stems trigonous. Leaves flat or canaliculate, scabrid on the margins. Inflorescence simple or compound, strongly contracted to open; involucre bracts 3-6, spreading. Spikelets 2-15 to the spike, fasciculate to divergent, linear, compressed, many-flowered; rachilla flexuous, narrowly winged. Glumes closely imbricate, elliptic-ovate. Nut oblong, subtruncate and apiculate, castaneous to black.

Occasional in moist open places and sandy localities.

Flowering : February - October
& Fruiting



Cyperus pygmaeus Rottb. (Syn: *Juncellus pygmaeus* (Rottb.) C. B. Clarke]

Very small tufted herb. Stem triquetrous, smooth. Leaves canaliculate, flaccid, scabrid on the margins. Inflorescence consisting of several very dense glomerules, contracted into a triangular-ovoid to subglobose lobed head; involucre bracts with dialated base. Spikelets often incurved and contorted, linear or ovate-lanceolate, strongly compressed, 10-20 flowered; glumes pellucid, distichous. Nut trigonous or plano-convex, pale brown.

Not common, but locally abundant in muddy swamps; often floating on water surfaces forming thick mats.

Flowering : July - December
& Fruiting



Cyperus rotundus Linn.

Vernacular name: Mutha, Motha (O, H, Beng.); Nut grass (E).

Perennial rhizomatous herbs; rhizomes sending long, wiry stolons ending in tubers; tubers fragrant, black. Stems slender, triquetrous. Leaves mostly radical. Inflorescence simple or compound; involucre bracts mostly 3; spikes ovoid; spikelets spicately arranged, linear, compressed. Glumes imbricate, linear-oblong, membranous, keeled, rubiginous to deep brown, 3-7-nerved. Nut trigonous, oblong-obovoid, brownish to black.

One of the most common weeds of wastelands and agricultural fields.

Flowering : Chiefly July - December
& Fruiting



Eleocharis dulcis (Burm.f.) Henschel
(Syn: *Eleocharis plantaginea* Roem. & Schult.)

Vernacular name: Chadchadi (O).

Perennial, caespitose herb, upto 80 cm; rhizome short with elongated stolons. Stems erect, terete, longitudinally striate, distantly transversely septate. Sheaths membranous. Spikelet brownish, cylindrical, with 2 empty glumes at the base; glumes closely imbricate, obovate, keeled, margin thin, scarious. Bristles 6-8, about as long as the nut, light brown. Nut light brown, polished, smooth, biconvex or 3-gonous.

Gregarious in swamps, ditches, rice fields and margins of lakes and ponds.

Flowering : July - December
& Fruiting



Fimbristylis acuminata Vahl

Glabrous perennial herb; rhizome very short. Stems slender, erect, densely tufted, angular, sulcate. Leaves reduced to obliquely truncate bladeless sheaths or the uppermost sheaths with short blade. Inflorescence consisting of a single terminal spikelet; spikelet erect, ovoid-lanceolate, terete, many-flowered; glumes spiral, chartaceous, glumes oblong-lanceolate, scarious, keeled upwards. Nut globosely ovoid, with transverse wavy ridges.

Occasional, in open sandy places.

Flowering : July - November
& Fruiting



Fimbristylis aestivalis (Retz.) Vahl

Small tufted, annual herb. Stems very slender, setaceous, angular. Leaves shorter than the stems, filiform, canaliculate, acute, soft-hairy. Inflorescence compound, loose; rays unequal; involucre bracts similar to leaves, the lower 1-2 usually overtopping the inflorescence. Spikelets solitary, ovoid or oblong-lanceolate, densely many-flowered, greenish brown; glumes spiral ovate, Nut ellipsoid or obovate, umbonate, shining.

Common in moist wet places.

Flowering : April - May
& Fruiting

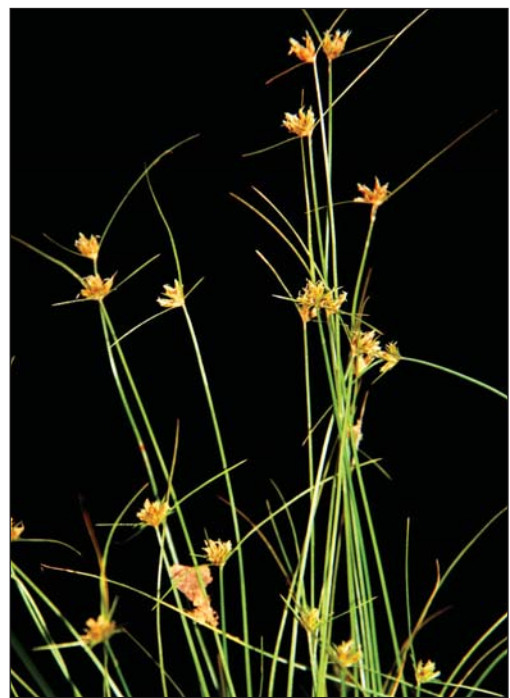


Fimbristylis argentea (Rottb.) Vahl

Small glabrous herb; stems densely tufted, setaceous, trigonous. Leaves filiform, usually shorter than the stem, flat or canaliculate, abruptly acuminate. Inflorescence capitate, semiglobose to globose, with usually 4-10 spikelets; involucre bracts 2-4, the lowest much longer than the inflorescence. Spikelets pale brown, sessile, oblong-ovoid or cylindrical, many-flowered; glumes spiral, membranous. Nut biconvex, broadly obovate or suborbicular.

Occasionally found in moist sandy soil and grassy fields.

Flowering : July - September
& Fruiting



Fimbristylis dichotoma (Linn.) Vahl

Vernacular name: Bada swanli (O); Bara nirbishi (Beng.).

Annual herb with short rhizome. Stems tufted, angular, striate. Leaves basal, abruptly acuminate; sheaths densely hairy; ligule a dense fringe of hairs. Inflorescence simple or compound, with few to numerous spikelets; involucre bracts 2-5. Spikelets solitary or more or less aggregated, ovoid or ovoid-oblong; glumes spiral, ovate, with 3-nerved green keel, umbonate. Nut biconvex, onovate, umbronnate, white to stramineous.

A fairly common weed in wetlands, rice fields and margins of lakes and ponds.

Flowering : July - December
& Fruiting



Fimbristylis miliacea (Linn.) Vahl

Vernacular name: Beruan (O); Bara Javani (Beng.).

Glabrous annual herb; stems erect, tufted, angular, base clothed with 2-3 tubular, truncate sheaths. Leaves dorsiventrally flattened. Inflorescence compound, loose with many spikelets; involucre bracts about 5, much shorter than the inflorescence, setaceous; primary rays several, compressed. Spikelets solitary, ellipsoid or oblong-lanceolate; glumes spiral, ovate. Nut stramineous, very obtusely trigonous, globosely obovoid.

Quite common and abundant in wetlands, swamps, rice fields and along water bodies.

Flowering : October - January
& Fruiting



Fimbristylis ovata (Burm.f.) Kern [Syn: *Fimbristylis monostachyos* (Linn.) Hassk.]

Vernacular name: Binda mutha (O); Marmari (Beng.).

Densely tufted herb; stems compressed-trigonous, somewhat incrassate at the base. Leaves basal, almost filiform, shorter than the stem, semi-terete; leaf-sheaths narrow, tip rounded opposite to the blade. Inflorescence usually consisting of a single terminal spikelet. Spikelets ovate or ovate-lanceolate, strongly compressed, stramineous or yellowish; glumes distichous, Nut obovoid or globose, trigonous, stramineous.

Frequent in moist and wet places; also in shady forest floors.

Flowering : June - December
& Fruiting



Fimbristylis schoenoides (Retz.) Vahl

Vernacular name: Kesari malang (Beng.).

Caespitose, glabrous herb. Stems compressed, sulcate. Leaves filiform, margins involute, abruptly acuminate; ligule a dense fringe of short hairs. Inflorescence consisting of a single terminal spikelet. Involucral bracts usually glume-like, the lowest sometimes leafy. Spikelets solitary, ovoid or conical, densely many-flowered; glumes spiral, pale brown, suborbicular. Nut biconvex, suborbicular-obovate, umbonate, straw-coloured.

Very common in swamps, rice fields and moist grassy fields; often floating on water surface.

Flowering : September - November
& Fruiting



Fuirena ciliaris (Linn.) Roxb. (Syn: *Fuirena glomerata* Lam.)

Erect, annual, tufted herb. Stems slender, angular, striate-sulcate, patently hairy. Leaves linear, hirsute, with prominent nerves; sheaths inflated. Inflorescence a single terminal cluster or also 1-2 clusters on short pubescent peduncles in the upper axils; involucral bracts leafy. Spikelets greenish, ovoid; glumes orbicular-obovate, bristly. Nut brown, triquetrous, elliptic-obovoid, with a small linear apiculus.

Commonly occurs in moist waste places and rice fields.

Flowering : October - January
& Fruiting



Fuirena umbellata Rottb.

Perennial with long creeping rhizome. Stems tufted, erect, 60-120 cm, acutely 4-5-angular. Leaves linear, with 5 prominent nerves; cauline leaves distant. Inflorescence of a terminal and several axillary ones, the latter single or binate; lower bracts sheathing at the base. Spikelets in very dense clusters, ovoid to oblong-ovoid, finally squarrose, brownish or dark-green. Nut ellipsoid to obovate, triquetrous, smooth, shining, stramineous to fuscous.

Occasional, along the muddy margins of lakes and in swamps; sometimes in deep water.

Flowering : August - December
& Fruiting



Kyllinga brevifolia Rottb. [Syn: *Cyperus brevifolius* (Rottb.) Hassk.]

Perennial herb; rhizome horizontally creeping, covered with ovate-lanceolate, reddish-brown scales. Stems rigidulous, triquetrous with flat sides. Leaves well-developed, sometimes exceeding the stem, canaliculated. Inflorescence capitate, consisting of a terminal globose to ovoid greenish head; involucre bracts 3-4. Spikelets closely packed, compressed. Nut biconvex, ellipsoid, yellowish-brown.

Frequent in lawns, field bunds, banks of lakes and ponds and moist waste places.

Flowering : August - December
& Fruiting



Kyllinga nemoralis (J. R. & G. Forst.) Dandy ex Hutch. & Dalz. [Syn: *Kyllinga monocephala* Rottb.; *Cyperys kyllinga* Endl.]

Perennial herb; rhizome creeping. Stem triquetrous, smooth. Leaves well-developed, flaccid, scabrid on the margins in the upper part; sheaths with red glands. Inflorescence capitate, consisting of a terminal white ovoid-globose head, with often 1-3 smaller sessile heads at base. Involucral bracts 3-4, spreading to reflexed. Spikelets closely packed, spreading. Nut biconvex, oblong, yellowish-brown.

Occasional in moist wastelands, rice fields and forest floors.

Flowering : July - January
& Fruiting



Kyllinga triceps Rottb. (Syn: *Cyperus triceps* Endl.)

Small perennial herb, with short rhizome; stems tufted, slender, trigonous. Leaves slightly conduplicate. Inflorescence capitate, consisting of usually 3, rarely 4-5 dense, sessile heads; central head subglobose, obtuse, lateral ones globose, smaller; involucre bracts 3-4, unequal, widely spreading to reflexed. Spikelets numerous, whitish to pale green, oblong, strongly compressed, Nut biconvex, laterally compressed, ellipsoid or oblong, yellowish brown to brown.

Abundant in open grasslands, rice fields, gardens and on margins of canals, lakes and ponds.

Flowering : May - December
& Fruiting



Mariscus compactus (Retz.) Bold. (Syn: *Cyperus compactus* Retz.)

Perennial erect herb with short rhizome. Stems 2-3, subcaespitose, robust, obtusely trigonous or subterete, bases clothed with very characteristic, large reddish-brown spongy sheaths. Leaves canaliculate, septate-nodulose. Inflorescence large, compound; involucre bracts numerous. Spikes globose or subglobose, very dense; spikelets linear to lanceolate, reddish-brown. Nuts trigonous, oblong, apiculate.

Not common; found in rice fields and margins of canals, lakes and ditches.

Flowering : August - December
& Fruiting



Mariscus paniceus (Rottb.) Vahl [Syn: *Cyperus paniceus* (Rottb.) Boeck.

Erect slender herbs; rhizome emitting very slender stolons covered with lanceolate, reddish-brown striate sheaths. Inflorescence simple. Spikelets sessile or subsessile, shortly cylindrical; finally horizontally spreading, lanceolate, slightly curved, always bearing 1 nut. Glumes 4, lanceolate-ovate, acute, obscurely nerved, reddish lineolate, the third nut-bearing, the fourth much reddish, sterile. Nut small, oblong.

Common in shady moist localities, forest floors and grasslands.

Flowering : June - August
& Fruiting



Mariscus squarrosus (Linn.) C. B. Clarke. (Syn: *Cyperus squarrosus* Linn.; *Cyperus aristatus* Rottb.)

Small, annual tufted herb. Stem triquetrous to almost 3-winged. Leaves few, usually shorter than the stems, canaliculate. Inflorescence simple, often reduced to a single head or with 1-3 rays; involucre bracts 2-5, tapering. Spikes dense, oblong-ovoid, echinate; spikelets densely spicate, compressed; glumes elliptic, keeled, 5-7 nerved. Nut trigonous, oblong, brown.

Common as a weed in open waste places and grassy fields.

Flowering : August - November
& Fruiting

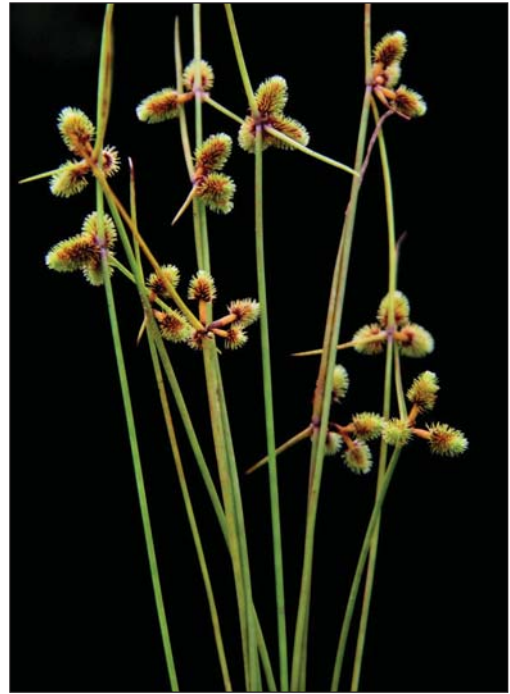


***Rikliella squarrosa* (Linn.) Raynal**
(Syn: *Scirpus squarrosus* Linn.)

Small, tufted annual herb. Stem erect, setaceous. Leaves 1-2, shorter than the stems, filiform. Inflorescence capitate, usually pseudolateral, usually 1-4; involucre bracts 1-3, similar to the leaves. Spikelets sessile, appearing squarrose by the recurved mucros of the glumes, ovoid to subcylindric, terete, densely many-flowered, greenish or brownish. Nut trigonous, narrowly obovoid, brown to black.

Quite common in open sandy moist places along with other grasses and sedges.

Flowering : August - December
& Fruiting



***Schoenoplectus articulatus* (Linn.) Palla**
(Syn: *Scirpus articulatus* Linn.)

Vernacular name: Kanri, Gaichira, Gaichiria, Charchadi (O); Pappati chikha (Beng.); Chichara (H).

Annual or perennial caespitose herb. Stem erect, terete, fistulose, more or less transversely septate. Leaves reduced to 1-2 bladeless, scarios, obliquely truncate sheaths. Inflorescence pseudolateral, capitate, globose, consisting of numerous spikelets; involucre bract erect. Spikelets brown sessile, ovoid to oblong-ovoid, terete; glumes appressed, concave. Nut triquetrous, obovoid, transversely wavy-ridged, black.

Quite abundant in marshy places, shallow depressions, margins of ponds, pools and lakes and other wetlands.

Flowering : September - February
& Fruiting



***Schoenoplectus grossus* (Linn.) Palla**
(Syn: *Scirpus grossus* Linn. f.)

Vernacular name: Santara (O); Kesar, Kesari (Beng.,H.);

Large, stout, perennial sedge, upto 150 cm. Stems erect, sharply trigonous, septate. Leaves spongy, keeled, septate; sheaths spongy. Spikelets in large decompound panicles; involucre bracts usually 3, foliaceous; spikelets numerous, brown, solitary, ovoid, densely many-flowered; glumes broadly obovate oblong, scarious, concave, reddish brown. Nut trigonous, elliptic-obovoid, smooth, brown.

Locally gregarious in swamps, rice fields and margins of pools, tanks and canals.

Flowering : September - December
& Fruiting



***Schoenoplectus lateriflorus* (Gmel.)**
Lye (Syn: *Scirpus lateriflorus* Gmel.;
Scirpus supinus auct. non Linn.)

Diffuse annual herb. Stem slender, densely tufted, terete or subterete. Leaves reduced to 2-3 sheaths, obliquely truncate at apex. Inflorescence pseudolateral, with 4-10 spikelets in clusters; involucre bracts 1-2. Spikelets oblong-ovoid, brownish, densely 15-20 flowered; glumes ovate, keeled. Nut trigonous, obovate, wavy-ridged, black.

Frequent in wet places especially in rice fields and muddy banks.

Flowering : September - April
& Fruiting



Scleria terrestris (Linn.) Fassett
(Syn: *Scleria elata* Thw.)

Vernacular name: Churia (O).

Perennial herb; rhizome stout, nodose. Stem 1.0-1.5 m, robust, erect or scrambling over bushes. Leaves all scattered; sheaths widened upwards, scabrid. Inflorescence very variable in size, primary bracts overtopping the inflorescence, secondary ones setaceous. Spikelets unisexual, solitary or 2-3 together; glumes broadly ovate; disc 3-lobed, rounded. Nut ovoid or sub-globose, cancellate, shining white.

Occasionally found in grassy fields and shady places on forest floors.

Flowering : October - March
& Fruiting



POACEAE

Alloteropsis cimicina (Linn.) P. Beauv.

Perennial; culms tufted, erect or ascending, hairy; nodes hirsute. Leaves ovate or ovate-lanceolate, hairy and ciliate, base cordate; ligule of long hairs. Spikes 4-8, sub-verticillate, simple or 2-furcate; spikelets green, dorsally compressed, 1-3-nate on short slender pedicels; upper glume fringed with dense pink hairs. Caryopsis elliptic-oblong, compressed.

Abundant in waste places, roadsides, agricultural fields and in forests during post-monsoon period.

Flowering : August - October
& Fruiting



Aristida setacea Retz.

Vernacular name: Ghodalanji (O).

Stouter grass, simple or fastigiately branched; culms erect. Leaves often overtopping the inflorescence; sheaths at base of the culm open. Panicle contracted, inclined, feathery with rather close clusters of branches and secund spikelets; spikelets 1-1.75 cm long; glumes awned; rachilla very pungent, white-bearded. Caryopsis slender, cylindrical.

Quite gregarious in open waste places, lateritic soils and scrub forests.

Flowering : August - February
& Fruiting



Bambusa arundinacea (Retz.) Willd.

Vernacular name: Kanta Baunsa, Daba bans (O), Kanta bans, Ketua, Behar bans (Beng.); Bans, Magar bans (H); Thorny bamboo (E).

Large thorny bamboo with curving branches from a thick rootstock; culms bright green, shining, up to 24 to 30 m high; culm-sheaths striate, rounded at the top and plaited on the edges, densely yellow-hairy when young. Leaves linear-lanceolate. Panicle often occupying the whole plant; spike sessile in close dense clusters along the twigs. Caryopsis oblong, furrowed on one side.

Gregarious in patches in moist valleys, scrub forests and degraded areas.

Flowering : Sporadic flowering and
& Fruiting fruiting in March-May.



Bothriochloa bladhii (Retz.) S.T. Blake
[Syn: *Dichanthium bladhii* (Retz.)
Clayton; *Bothriochloa intermedia* (R.
Br.) A. Camus; *Amphilophis glabra*
(Roxb.) Stapf]

Vernacular name: Gandha bena (O);
Gandha gurana (Beng.).

Tufted perennial grass; culms erect or
decumbent at the base; nodes with a
dense ring of hairs. Leaves broadly linear,
with strong midrib; sheathes compressed,
loose, ligule very short, truncate, margin
ciliolate. Inflorescence paniculate with an
elongated central axis; panicle purplish,
more or less compound; internodes of
panicle glabrous, lower long, gradually
shorter. Caryopsis oblong, obtuse,
slightly compressed.

Common in waste place and grassy fields.

Flowering : September - March
& Fruiting

Bothriochloa pertusa (Linn.) A.
Camus [Syn: *Dichanthium pertusum*
(Linn.) Clayton; *Amphilophis pertusa*
(Linn.) Nash ex Stapf]

Vernacular name: Basana (O); Sandhur (H).

Stoloniferous perennial herbs; culms
erect or ascending, upto 60 cm; nodes
bearded. Leaves with long hairs near the
base; sheaths usually scaberulous; ligule
short, membranous, truncate. Racemes
usually 3-9, digitate or subdigitate; lower
glume of sessile spikelets with a dorsal
pit above the middle. Pedicelled spikelet
equal to the sessile spikelet; upper glume
flat, dorsally 3-5-nerved, obtuse.
Caryopsis oblong, obtuse.

A common grass of wastelands, agricultural
fields, road sides and open grounds.

Flowering : September - March
& Fruiting



Brachiaria distachya (Linn.) Stapf

Erect or procumbent herb, rooting at base. Stem angular and channelled. Leaves erect, linear-lanceolate, amplexicaul at base; ligule of a hairy ring. Inflorescence a panicle; racemes 2-3, simple, sub-conjugate; spikelets elliptic-oblong or elliptic-obovate. Lower florets neuter, upper florets bisexual. Caryopsis tightly enclosed by lemma and palea.

Fairly common in rice fields, swamps and moist grassy areas.

Flowering : September - December
& Fruiting



Brachiaria mutica (Forssk.) Stapf

Vernacular name: Paraghasa (O); Nardul (Beng.), Para grass (E).

Perennial herbs; culms robust; nodes villous. Leaves linear or linear-lanceolate. Racemes numerous, the lowest branched; rachis more or less flat, herbaceous, sometimes ribbon-like, ciliate on the margins and with a few long hairs at the base. Spikelets solitary, densely and untidily crowded in more than two rows on the rachis, lanceolate; pedicels usually setose. Caryopsis enclosed by hardened lemma and palea

Gregarious in marshes, depressions and along canals and other water bodies; introduced as a fodder crop but naturalized.

Flowering : August - January
& Fruiting



Brachiaria ramosa (Linn.) Stapf

Vernacular name: Baunsapalli, Baunsia ghasa (O)

Annual herbs; culms to 60 cm, often from a decumbent base; nodes pubescent. Leaves lanceolate or linear; sheaths finely pubescent on the edges and often with sparse scattered hairs above; ligule a fringe of short hairs. Racemes erect or suberect, few or many in pyramidal panicle; rachis triquetrous, hispidulous. Spikelets or pairs or clusters of spikelets approximate; lower glumes 5-7-nerved. Caryopsis enclosed by lemma and palea.

A very common weed in waste places, roadsides and agricultural fields.

Flowering : May - December
& Fruiting



Chloris barbata Sw.

Vernacular name: Jargi gandi (H).

Perennial; culms ascending, 30-90 cm, simple or branched at base. Leaves linear, scaberulous; ligule very narrow. Spikes crowded, 6-15, at the top of the culm; rachis scaberulous; spikelets usually purplish, unilateral, 2-seriate. Rachilla short, bearing 2 curiously inflated truncate, empty lemmas, awned from the back, ciliate above the middle; the upper shorter, subglobose with shorter awn. Caryopsis oblong, triquetrous.

Quite a common weed in waste places, agricultural fields and road sides; also on dilapidated walls and buildings.

Flowering : September - January
& Fruiting



Chrysopogon aciculatus (Retz.) Trin.

Vernacular name: Guguchia (O); Chora Kanta (Beng.); Surwala, Lampa (H).

Perennial herb with creeping rhizome; culms rooting and branching at the lower nodes, decumbent, finally ascending, glabrous. Leaves short, densely tufted, linear. Panicle narrow, turning red or purple, with capillary branches, solitary or sub-verticillate; spikelets from the villous callus being produced downwards and adnate on one side in a lone needle-like appendage. Caryopsis linear, laterally compressed.

Quite common and gregarious weed in open wastelands, field bunds, road sides and damp localities.

Flowering : July - November
& Fruiting



Coix lacryma-jobi Linn.

Vernacular name: Gargada, Gargara (O); Gurgur, Kunch (Beng.); Gurlu (H); Job's Tears (E).

Tall annual herbs; culms robust, spongy, rooting at the lower nodes. Leaves flat, linear, margins cartilaginous, scabrid; sheaths smooth, long, often very broad; ligule membranous, frilled. Inflorescence consisting of peduncled, suberect, flase spikes; peduncle flattened or trigonous. Lower floret male, triandrous. Involucre ovoid, white or bluish, polished, hard. Caryopsis subglobose or ellipsoid, enclosed in the bract.

Frequent along the margins of ponds, pools, lakes, canals and in rice fields.

Flowering : September - February
& Fruiting



Cynodon barberi Rang.& Tad.

Creeping herb, 30-60 cm long, rooting and branching at the nodes; flowering branches erect or ascending. Leaves narrowly oblong to lanceolate, scaberulous, primary nerves 7; sheath hairy at mouth; ligule a narrow membrane, with lacinate or ciliate edge. Inflorescence of 3-5 slender, digitate, spikes borne at the ends of their peduncles; rachis slightly angular. Spikelets 1-flowered, awnless, compressed. Caryopsis smooth, pale, transparent, obscurely trigonous.

Common in moist waste places and rice fields; very often confused with *Cynodon dactylon*.

Flowering : Through out the year.
& Fruiting



Cynodon dactylon (Linn.) Pers.

Vernacular name: Duba, Dubaghas (O); Durba, Dubla (Beng.); Dub, Dhub (H).

Creeping grass with scaly rhizomes and strong stolons; culms decumbent, glabrous. Leaves distichous, linear or lanceolate-acuminate; sheaths bearded at mouth; ligule of a ring of white hairs. Inflorescence of 2-8, digitate, green or purplish spikes; rachis tumid and pubescent at the base. Spikelets 1-flowered, awnless, compressed, sessile in 2 rows on one side of the rachis. Caryopsis brown, oblong or fusiform-oblong.

Fairly common in lawns, roadsides, cultivated land, damp ground, wastelands etc.

Flowering : Most part of the year.
& Fruiting



Cyrtococcum trigonum (Retz.) A.
Camus

Decumbent herb, slender, creeping and branching below. Leaves linear or linear-lanceolate; sheaths glabrous or with ciliate margins; ligule rounded. Panicle contracted, branches few, angular, glabrescent. Spikelets few, dirty buff, hispidulous, gibbous, laterally compressed; pedicels shorter than the spikelets. Caryopsis small, obovoid.

Very common in moist and shady localities, often as an undergrowth in forests.

Flowering : September - March
& Fruiting



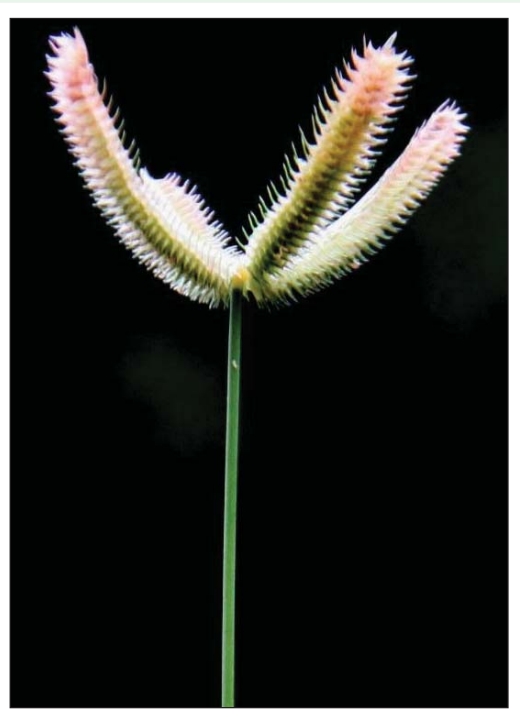
Dactyloctenium aegyptium (Linn.)
P.Beauv. [Syn: *Eleusine aegyptia*
(Linn.) Desf.]

Vernacular name: Kakudia (O); Makra,
Makri (H).

Erect or procumbent herb, geniculate at the base. Leaves linear, ciliate on the nerves or midrib and margins; sheaths hairy or ciliate above. Spikes stout, 3-6, spreading or suberect; peduncle hairy at base of spike. Spikelets spreading at right angles from the rachis. Caryopsis subglobose, flattened on one side of the hilum which is not depressed, very rugose.

Common weed in wastelands, agricultural fields and shady moist localities.

Flowering : September - March
& Fruiting



Digitaria abludens (Roem.& Schult.)
Veldk. [Syn: *Digitaria pedicellaris*
(Trin.ex Hook.) Prain].

Vernacular name: Chiri-chira (Beng.)

Erect annual grass. Leaves linear, finely acuminate, glabrous or pubescent; sheaths sparsely hairy; ligule short, scarious. Peduncle slender with 3-10 alternate, suberect or spreading, filiform racemes; rachis trigonous. Spikelets 2-5-nate, spaced, elliptic, acute, mucronate, with clavate hairs; tip of pedicels thickened. Upper glume elliptic, acute, 5-nerved, with very slender clavate hairs. Tip of the grain distinctly apiculate and protruding above the lower lemma.

Frequent in grasslands, forest clearings and other open places.

Flowering : July - November
& Fruiting



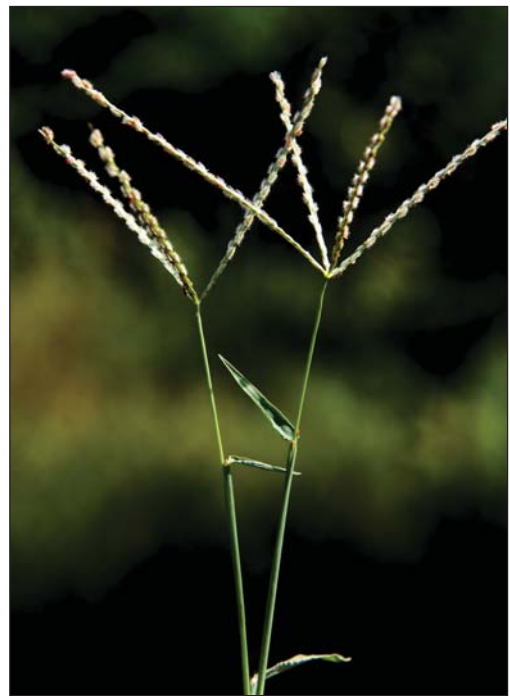
Digitaria ciliaris (Retz.) Koeler

Vernacular name: Makur-jali (Beng.);
Takri (H).

Annual herbs; culms decumbent at the base and geniculately ascending. Leaves linear. Inflorescence digitate or subdigitate, composed of 2-12 racemes; racemes stiff, sometimes with sparse long white hairs. Spikelets binate and overlapping; rachis winged with triquetrous midrib; pedicels triquetrous, scabrid; spikelets narrowly elliptic, one or both spikelets often beset with stiff glassy bristles. Caryopsis ellipsoid, grey to light brown.

Fairly abundant in open grassy fields, road sides and scrub forests.

Flowering : June - April
& Fruiting



Digitaria longiflora (Retz.) Pers.

Vernacular name: Kanka jariya (H).

Annual herb; creeping and rooting at the nodes, with ascending slender branches. Leaves lanceolate or linear-lanceolate, erect or spreading, acute, glabrous or with a few hairs; sheaths pubescent; ligule short, truncate, membranous. Inflorescence of 2-3 racemes; racemes digitate, slender, erect, pale green in flower; rachis flat, straight, margins winged; pedicels 2-3-nate, terete with discoid tips. Spikelets appressed, sub-imbricate, elliptic lanceolate or elliptic-oblong. Caryopsis ellipsoid, whitish.

Very common in open grassy fields and waste places.

Flowering : July - December.
& Fruiting



Echinochloa colona (Linn.) Link

Vernacular name: Suan, Suanghas (O); Shama (Beng.); Sawank (H).

Annual tufted grass; culms erect or ascending, branched mostly in the lower part only, glabrous. Leaves linear, flat, flaccid, glabrous or scaberulous; ligule absent. Panicle narrow; spikes not crowded, suberect or erecto-patent, solitary rarely 2-nate; rachis triquetrous and scaberulous. Spikelets crowded, 3-4-seriate, ovate to ovate-elliptic. Caryopsis broadly elliptic.

Fairly common in moist places, especially near water courses and agricultural fields.

Flowering : Through out the year.
& Fruiting



Echinochloa stagnina (Retz.) P. Beauv.

Vernacular name: Bada Suan, Jhipa (O); Dul (Beng.).

Aquatic annual herbs; culms spongy, erect, tufted, decumbent and rooting at the lower nodes.. Leaves linear, acuminate; sheaths glabrous; ligule a fringe of stiff hairs, sometimes absent in uppermost leaf. Panicle ovate-lanceolate or pyramidal open; spikes 5-15, secund, ascending; spikelets ovate to elliptic, long awned, pubescent. Caryopsis elliptic, plano-convex.

Common in stagnant water bodies, paddy fields and margins of lakes and ponds; often floating on water surfaces.

Flowering : March - October
& Fruiting



Eleusine indica (Linn.) Gaertn.

Vernacular name: Nandia, Anamandia (O); Malan kuri, Mandla (H); Crow foot grass, Crab grass (E).

Tufted annual herb, erect or slightly geniculate; culm compressed. Leaves linear, flat or complicate, glabrous or sparingly hairy; sheaths loose; ligule very small, membranous. Spikes 3-7, erect or spreading at the top of the culm, slender; peduncle; spikelets mostly pointing forwards, 3-5- flowered. Grain oblong and obtusely trigonous with oblique base, transversely rugose, sometimes obscurely so, tip obtuse or rounded.

Fairly common weed of waste places and roadsides.

Flowering : August - February
& Fruiting



Elytrophorus spicatus (Willd.) A. Camus (Syn: *Elytrophorus articulatus* P.Beauv.)

Tufted, erect, usually small grass, 15-30 cm tall. Leaves linear, flat. Inflorescence of densely packed globose clusters of spikelets, continuous in a cylindrical spiciform panicle; spikelets small, laterally compressed, 3-6-flowered, subtended by many empty glumes, bright green. Caryopsis minute, narrowly oblong or fusiform, compressed.

Occasional in harvested rice fields, dried up pools and ditches and in wet habitats.

Flowering : November - March
& Fruiting



Eragrostis ciliaris (Linn.) R. Br.

Annual herbs; culms slender. Leaves usually ascending, flat to convolute. Panicle- spiciform, often more or less lobed or interrupted. Spikelets densely crowded, ovate, often purplish, 6-12-flowered; rachilla more or less jointed, breaking up from apex downwards; lemma long-ciliate on the keels; cilia on keels of palea soft. Caryopsis linear-oblong, enclosed by lemma and pales.

Common in waste palces and grassy fields.

Flowering : August - January
& Fruiting



Eragrostis ciliata (Roxb.) Nees

Annual herbs; culms erect or ascending from a long perennial horizontal rootstock. Leaves short, linear or linear-lanceolate; sheaths bearded below the mouth; ligule of a few hairs. Panicle densely spike-like, cylindric; spikelets rather dull, compressed, breaking up from above downwards; keels strong, long-ciliate, hairy within, tip rounded between the keels. Caryopsis small, terete.

One of the common weed in gardens, cultivated lands and roadsides.

Flowering : November - February
& Fruiting



Eragrostis japonica (Thunb.) Trin. [Syn: *Eragrostis interrupta* Lam.; *Eragrostis diarrhena* (Schult.) Steud.]

Tufted annual herbs; culms 10-100 cm, erect. Leaves flat, upto 30 cm long; ligule membranous, truncate, fimbriate. Panicle oblong or linear; branches ascending close to the main rachis or spreading, branches contracted in dense remote pseudo-whorls, bare towards the base; spikelets shortly pedicelled and appressed to the secondary branchlets, 4-14-flowered, ovate-oblong. Caryopsis ellipsoid.

Locally gregarious in open damp localities and harvested crop fields.

Flowering : October - January
& Fruiting



Eragrostis pilosa (Linn.) P.Beauv.

Annual slender herb, with glandular band below nodes of the culm. Leaves linear, acuminate, base and mouth of sheath ciliate; ligule a ring of short hairs. Panicle opened, delicate with capillary branches; branches in pseudo-whorls, with long cilia in the axils. Spikelets long pedicelled, grey or purple. Caryopsis brown, oblong, one side striated than the other.

Frequently found in moist grassy places and wastelands.

Flowering : July - December
& Fruiting



Eragrostis unioloides (Retz.) Nees ex Steud. [Syn: *Eragrostis amabilis* auct. non (Linn.) Wight & Arn. ex Hook. & Arn.]

Vernacular name: Phurphuri (O); Koni (Beng.).

Annual herbs; culms tufted or solitary, erect or geniculately ascending. Leaves mostly basal, linear, convolute, sometimes flat; ligule reduced to a narrow rim. Panicle narrow or ovate-oblong, contracted or effuse with alternate branches; spikelets pale or reddish-purple, ovate or ovate-oblong, compressed, many-flowered, breaking up from below upwards; rachilla nodose after fall of lemmas but straight. Caryopsis ellipsoid. or obovoid, laterally compressed.

Fairly common in moist and wet places, especially in rice fields and swamps.

Flowering : July - March
& Fruiting



Eriochloa procera (Retz.) Hubbard
(Syn: *Eriochloa ramosa* Kuntze).

Vernacular name: Khara ghas (O).

Perennial herbs; culms tufted, slender, erect; nodes swollen and pubescent. Leaves erect, linear or linear-lanceolate; ligule very short, hairy. Racemes erect or erecto-patent, peduncled, forming a narrow, compound panicle; rachis angular, pedicels solitary or 2-nate, triquetrous; spikelets close set, pale, broadly lanceolate or ovoid; upper lemma with a short cusp. Caryopsis pointed at base, compressed, smooth.

Abundant in paddy fields, margins of canals, ponds and swamps.

Flowering : August - March
& Fruiting



Hackelochloa granularis (Linn.)
Kuntze [Syn: *Manisuris granularis*
(Linn.) Linn.f.]

Vernacular name: Trinpali, Kangni (H).

Annual, much-branched densely hairy herb. Leaves linear-lanceolate, base subcordate, hairy, acuminate; sheaths hirsute, inflated; ligule membranous, ciliate. Raceme sheathed at base, often several from one leaf-axil; sessile spikelets globose, secund, in 2 rows, lower glume pitted all over; pedicelled spikelets green, distichous, glumes with winged keels. Caryopsis globose or subglobose.

Occasional weed in moist waste places, cultivated fields and roadsides.

Flowering : August - December
& Fruiting



Hemarthria compressa (Linn.f.) R. Br.

Vernacular name: Gopkena (O); Pansheru, Buksha, Biksa (H).

Erect or decumbent perennial herb; culms rooting below. Leaves linear, mouth of sheath hairy; ligule very short, truncate, membranous, ciliate. Racemes compressed, erect, exerted slightly from the sheath, dark green; joints of rachis disarticulating tardily, much shorter than the spikelet, with the back slightly and front deeply excavated, scar and articulation flat; sessile spikelet 2, linear-lanceolate, callus small, Caryopsis oblong, dorsally compressed.

Non common, occasionally found along water courses and bunds of paddy fields.

Flowering : August - October
& Fruiting



Heteropogon contortus (Linn.) P. Beauv. ex Roem. & Schult.

Vernacular name: Sinkula, Dauria (O); Kher (Beng. & H); Spear Grass, Bellary Grass (E).

Erect, perennial herbs; culms tufted, 30-120 cm tall, often fastigiately branched. Leaves linear, scabrid above, base with long tubercled-based hairs; ligule small, truncate, ciliolate. Racemes slender, cylindrical, contorted, awned, clothed with white tubercled-based stiff hairs from the outer glumes. Lower spikelets homogamous, 4-8 pairs. Caryopsis sublinear, terete.

Fairly common in wastelands, open fields, cultivated lands and forest fringes.

Flowering : September - January
& Fruiting



Hygroryza aristata (Retz.) Nees ex Wt. & Am.

Perennial floating aquatic herb; culms spongy, with whorled capillary green roots at nodes. Leaves ovate, ovate-oblong, subcoriaceous, obtuse, base rounded or subcordate, shortly petioled; sheaths much inflated, mouth auricled; ligule O. Panicle effuse, with few spreading branches, lower whorled, often deflexed; spikelets few; lemma narrowly lanceolate, 7-nerved, awned. Caryopsis narrowly oblong.

Common in tanks, lakes and slow-moving streams; often making pure communities.

Flowering : August - January
& Fruiting



Hymenachne acutigluma (Steud.) Gilliland (Syn: *Hymenachne pseudointerrupta* Muell.; *Hymenachne myuros* P. Beauv.)

Stout grass with a prostrate rooting base; culms erect, spongy below, rooting at the lower nodes; rootstock creeping or floating. Leaves linear, base rounded, tip acuminate; sheaths glabrous or ciliate; ligule short, hyaline. Panicle very dense, narrow, cylindrical, compound with closely appressed branches, 10-30 cm long; rachis margined; spikelets variously grouped, secund, narrowly lanceolate, awned. Caryopsis very small, oblong, tip contracted.

Quite common in shallow tanks, pools, ditches, rice fields and along the margins of lakes and ponds.

Flowering : November - February
& Fruiting



***Imperata cylindrica* (Linn.) Raeusch.**
(Syn: *Imperata arundinacea* Cyrill.)

Vernacular name: Chhana ghasa, Dabbu Chhana (O); Ulu (Beng.); Siru, Ulu (H); Thatch Grass (E).

Erect perennial grass, very variable in size; culms leafy, solid; rootstock widely creeping and stoloniferous, forming tufts of leaves. Leaves basal, erect or spreading, flat or rolled, scabrid on margins; sheaths loose; ligule membranous, ciliate. Panicle spiciform, cylindrical, white silky hairy; generally binate, one short, the other long-pedicelled, 2-flowered; stamens yellow. Caryopsis oblong.

Gregarious and abnoxious weed in open low-laying areas, waste places, field bunds and dry forest floors.

Flowering : Most part of the year.
& Fruiting



***Ischaemum indicum* (Houtt.) Merr.**
(Syn: *Ischaemum ciliare* Retz.)

Slender perennial herbs; erect, decumbent or creeping at base, nodes bearded. Leaves linear, pubescent or villous; sheaths villous; ligule short, ciliate. Racemes spiciform, usually 2, on a long peduncle; joints of rachis and pedicels strongly compressed, readily disarticulating. Spikelets binate, one sessile and the other long-pedicelled; sessile spikelets bearded, lower glume expanded below the middle. Caryopsis ellipsoid, dorsally compressed.

Abundant herb in wet places, field bunds, margins of lakes and ponds and moist waste localities.

Flowering : October - February
& Fruiting



Ischaemum rugosum Salisb.

Vernacular name: Tuli (O); Moraro (Beng.).

Annual stout herbs; culms 40-100 cm, erect or ascending. Leaves linear, flat, sharply acuminate, hairy; sheaths lax, margins ciliolate; ligule obtuse, ciliolate. Racemes 1-2 together, yellow, scarcely exerted from the sheaths; rachis thick, fragile. Sessile spikelets with bearded callus; margins of the lower glume of sessile spikelet narrowly and evenly inturred from base to apex. Caryopsis oblong, dorsally compressed.

Occasional, in wet grassy places and bunds of agricultural lands.

Flowering : September - January
& Fruiting



Isleima prostratum (Linn.) Anders. (Syn: *Isleima wightii* Anders)

Slender, tufted leafy herbs; culms decumbent, nodes bearded. Leaves slender, margin scabrid, subspinulose; sheaths and base of blades with tubercle-based hairs. Panicle with fascicled branches interspersed with spathe-like bracts; racemes fascicled, each in axil of a complicate spathe with scarious margins. Spikelets lanceolate, whorled to form involucre, all pedicelled. Caryopsis oblong, dorsally compressed.

Occasional, in low-laying areas and harvested crop fields, especially with clayey soils.

Flowering : September - January
& Fruiting



Leersia hexandra Sw.

Slender perennial herbs; culms rooting from lower nodes. Leaves usually stiff, striate, scabrid, acuminate, narrowed at the base; sheaths striate, very scabrid; ligule truncate. Panicle slender, contracted, with distant branches, flexuous. Spikelets 1-flowered, laterally compressed, closely imbricate, oblong, green. Caryopsis oblong, compressed.

Gregarious and often forming matted growth on water surfaces in tanks and lakes, also in marshes and rice fields.

Flowering : July - February
& Fruiting



Leptochloa chinensis (Linn.) Nees

Vernacular name: Bhuru (O); Chanhel (H).

Annual, slender herbs; culms tufted, stouter, 60-120 cm. Leaves erect or spreading, linear, flat or convolute, finely acuminate, scaberulous; ligule short, lacerate. Panicle lax, branches slender, spiciform; spikelets small, sessile, 4-6-flowered; glumes unequal; lower lemma obtuse and apiculate. Caryopsis loose, obtusely trigonous, subrugose.

Very common in rice fields, along ponds, streams, lakes and canals.

Flowering : July - December
& Fruiting

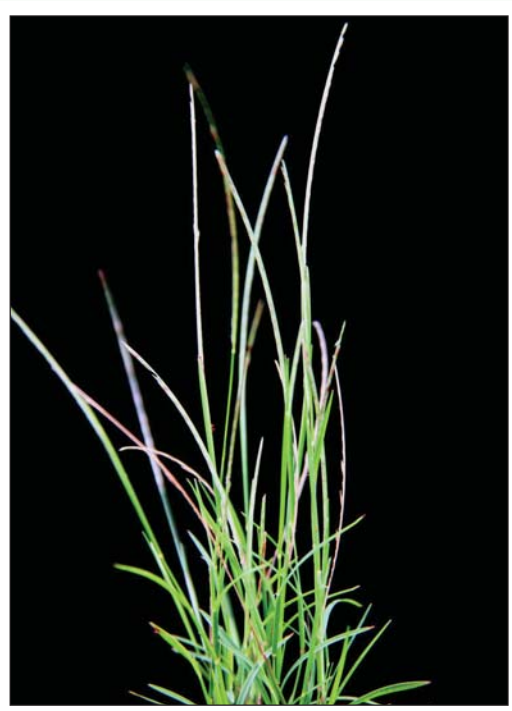


Microchloa indica (Linn.f.) P. Beauv.
[Syn: *Microchloa setacea* (Roxb.) R.Br.]

Small perennial, tufted grass; culms very slender, terete, smooth, glabrous, shining. Leaves crowded at the base, filiform, often curved, striate; ligule a narrow, ciliate rim. Spikes purplish, very slender; rachis flattened with rounded back; spikelets close-set; glumes subequal, as long as the spikelet, linear-lanceolate; lemma villous; palea 2-toothed at the apex. Caryopsis oblong, fusiform.

Common and locally abundant on dry rocky and sandy soils, laterite blocks and on dilapidated walls and temples.

Flowering : August - September
& Fruiting



Mnesithea laevis (Retz.) Kunth [Syn:
Mnesithea perforata (Roxb.) Haines]

Vernacular name: Sunatuli (O); Kurio (Beng.).

Perennial herbs; culms erect or decumbent at base, slender, 30-100 cm, simple or branched above; node distant, glabrous. Leaves linear, flat or conduplicate, strongly nerved. Inflorescence of solitary, terminal, spiciform, cylindrical racemes, 10-20 cm long; joints fused with the pedicels into a terete internode, deeply hollowed to receive the 2 opposite spikelets separated by a hyaline membrane. Caryopsis narrowly oblong, compressed.

Frequent in open grasslands, wet places and on the margins of ponds and ditches.

Flowering : August - November
& Fruiting



Oplismenus burmannii (Retz.) P. Beauv.

Vernacular name: Kaugodia (O); Nini (H).

Annual delicate leafy grass, diffusely branched with ascending culms. Leaves lanceolate to ovate-lanceolate, acuminate, with white hairs both sides; sheaths closely ciliate. Panicle of 3-6 secund alternate racemes; peduncle long and slender; rachis clothed with slender white hairs, often exceeding the spikelets. Spikelets 1-2-nate on short pedicels, furnished with slender hairs, awned. Caryopsis oblong, tightly embraced by the hardened lemma and palea.

Fairly abundant in shady moist localities and forest floors.

Flowering : October - November
& Fruiting



Oplismenus compositus (Linn.) P. Beauv.

Vernacular name: Kaugodia, Mohara (O).

Perennial herbs; culms creeping and rooting below, then ascending, glabrous, striate. Leaves lanceolate or linear-lanceolate, acuminate; sheaths often ciliate. Panicle with triquetrous axis, 10-20 cm long with subsecund, solitary, geminate or clustered distant racemes; rachis hispid-pubescent. Spikelets solitary or fascicled, secund, awned. Caryopsis oblong, tightly embraced by the lemma and palea

Very common in damp and densely shady localities and forest floors.

Flowering : October - December
& Fruiting



Oropetium thomaeum (Linn. f.) Trin.

Small herb, densely tufted; tufts, orbicular in outline. Leaves filiformed, crowded at the base of culm, often curved, more or less hairy; ligule lacerate. Spikes solitary or fascicled on very short branches, slightly curved; rachis compressed, undulating. Spikelets half immersed in the cavities of the rachis and imbricates. Caryopsis oblong, terete.

Occasional in rock crevices, old walls, roofs and lateritic soils.

Flowering : August - September
& Fruiting



Oryza rufipogon Griff.

Vernacular name: Balunga, Debalunga (O)

Perennial, tufted grass; culms white or purplish, erect or ascending, rooting in the basal part; lower sheaths slightly inflated, the upper ones tight. Leaves linear, margins scabrous; ligule triangular. Panicles loosely contracted; peduncle and axis terete, ribbed; branches ascendingly patent to erect, 1-9-spiked; pedicels clavate; spikelets caducous, oblong, awned. Caryopsis lanceolate to obovate-lanceolate, cylindrical, red-brown.

Frequent near rice fields, in swamps, ditches, tanks and other water courses.

Flowering : September - November
& Fruiting



Panicum brevifolium Linn. (Syn: *Panicum ovalifolium* Poir.)

Slender decumbent grass, rooting at the nodes. Leaves ovate, acute or acuminate, amplexicaul with a cordate base; ligule short, very ciliate. Panicle open, much divided; rachis, branches and pedicels capillary. Spikelets solitary, ovate, acute, gibbous; upper glume gibbous, persistent, hemispheric, hirsute; lemma obtuse, dorsally convex; palea large, oblong, dorsally smooth, margins narrowly reflexed. Caryopsis tightly enclosed by lamme and palea.

Common in shady moist localities under trees and in forests.

Flowering : October - January
& Fruiting



Panicum notatum Retz. (Syn: *Panicum montanum* Roxb.)

Perennial erect grass from a short, stout, upright rootstock; culms very slender, smooth, 60-120 cm, base woody. Leaves lanceolate, acuminate, shortly hairy and ciliate, base subcordate; sheaths pubescent; ligule obscure, truncate. Panicle large, terminal, very effuse, with long, 1-3-nate capillary branches and very long capillary pedicels. Spikelets obtuse, lanceolate to oblong, Caryopsis tightly enclosed by hardened lemma and palea.

Occasional, among bushes in scrub forests and hedges.

Flowering : September - December
& Fruiting



***Panicum paludosum* Roxb. (Syn: *Panicum proliferum* auct. non Lam.)**

Vernacular name: Borati, Kalasnar, Dalakri ghas (Beng.); Soda (T).

Aquatic perennial; culms spongy, erect or ascending from the creeping or floating lower portion, rooting at the often black nodes, much branched with inflated striate leaf sheaths. Leaves linear to narrowly lanceolate, margins serrulate; ligule of stiff hairs. Panicle with many erecto-patent branches; branches triquetrous; spikelets narrowly lanceolate. Caryopsis enclosed by lemma and palea.

Common in rice fields, swamps, along margins of tanks, lakes and canals.

Flowering : August - November
& Fruiting



***Panicum psilopodium* Trin.**

Annual, tufted grass; culms slender, erect or quickly ascending. Leaves broadly linear, acuminate; ligule of hairs. Panicle spreading, effuse, with very capillary branches and slender pedicels. Spikelets deciduous, narrowly elliptic, abruptly acute; lower glume acute or apiculate, amplexicaul, 5-nerved; upper glume oblong-ovate, cuspidate. Caryopsis enclosed tightly by lemma and palea.

Occasional, along waysides, tanks, rice-fields and in wastelands.

Flowering : July - December
& Fruiting



Panicum repens Linn.

Vernacular name: Reda, Panidal (O); Bandu, Baranda (Beng.); Torpedo grass (E).

Perennial herbs; culms tough, creeping at the base and then ascending, stoloniferous, clothed below with loose leaf-sheaths. Leaves linear-lanceolate to linear, involute, glaucous, base rounded ciliate; sheaths very striate, ciliate at the top; ligule obscure, ciliate. Panicle contracted or sub-effuse; pedicels with small cupular tips; spikelets mostly paired, lanceolate. Caryopsis enclosed by lemma and palea.

Fairly common in aquatic or semi-aquatic habitats, on the margins of water bodies and in rice fields.

Flowering : July - December
& Fruiting



Paspalidium flavidum (Retz.) A. Camus

Vernacular name: Bileilanji (O); Sanka (H).

Annual terrestrial herb; culms decumbent and ascending. Leaves sub-bifarious, linear, obtuse or suddenly acute, ciliate near the base, margins scabrid. Inflorescence of few to many spiciform sessile or subsessile racemes, secund on a common triquetrous rachis. Spikelets ovoid, turgid; lower lemma shorter than the upper lemma, convex, suborbicular, cuspidate. Caryopsis tightly enclosed in the lemma and palea.

Very common in moist and wet places; bunds of agricultural fields.

Flowering : July - October
& Fruiting



Paspalidium geminatum (Forssk.)
Stapf

Robust aquatic herbs; culms spongy and floating, rooting at the nodes with long branched spongy stolons. Leaves spreading linear, obtuse, acute or acuminate; lower sheaths dilated; ligule a fringe of hairs. Spikes erect or divergent, longer than the internodes of the setulose inflorescence axis; spikelets subsessile, subglobose or broadly ovate.

A common aquatic plant in tanks, lakes, swamps and other stagnant water bodies.

Flowering : July - April
& Fruiting



Paspalum distichum Linn. [Syn:
Paspalum paspaloides (Michx.) Scribn.]

Perennial, stoloniferous herbs; stolons leafy, rooting at the nodes, glabrous; culms erect to ascending. Leaves lanceolate or linear, flat; sheaths lightly keeled, pilose; ligule membranous, collar-shaped. Racemes 2, subopposite, erect to reflexed, rachis flattened or triquetrous. Spikelets solitary, imbricate, ovate-elliptic, pale green. Caryopsis elliptic or ovate, plano-convex.

Quite abundant in rice-fields, wet and marshy places.

Flowering : April - November
& Fruiting



Paspalum scrobiculatum Linn.
(Syn: *Paspalum orbiculare* Forst. f.)

Vernacular name: Kodua, Kodus, Koda (O);
Kodua dhan, Kodaka (H); Kodo Millet (E).

Annual or perennial herbs; rhizome short; culms glabrous, tufted, erect, ascending or creeping and rooting at the lower nodes. Leaves linear-lanceolate or linear, margins scabrous, base rounded or shallowly cordate, mid-nerve prominent; sheaths inflated; ligule membranous, fimbriate. Racemes 2-6; rachis flat; spikelets broadly rotundate-elliptic to almost orbicular, subimbricate in 2 rows. Caryopsis biconvex, pale.

Quite abundant in rice fields, moist and wet places; also cultivated on a small scale as a cereal crop.

Flowering : Most part of the year.
& Fruiting



Pennisetum pedicellatum Trin.

Erect annual herbs; culms 30-150 cm, branched from the base. Leaves linear, flat, sparsely hairy; sheaths sparsely hairy; membranous, shortly ciliate. Spikes cylindrical, dense, pink or purple, conspicuous by the involucrel tuft of densely plumose bristles; rachis slender, angled, flexuous; spikelets solitary and pedicelled or in groups of 2-5, with one sessile and the others pediceled. Caryopsis narrowly oblong, enclosed in hardened lemma and palea.

Gregarious in wastelands, roadsides, hillsides and forest edges.

Flowering : October - January
& Fruiting



Perotis indica (Linn.) Kuntze (Syn: *Perotis latifolia* Ait.)

Culms ascending or erect from a geniculate base, leafy, tufted. Leaves ovate to lanceolate, pungently acute, margins spinulose-ciliate, base cordate, often bristly or ciliate; sheaths short, striate; ligule minute, membranous, ciliate. Racemes slender, feathery owing to the long awns; rachis and pedicels pubescent; spikelets purplish, with 2 awns. Caryopsis linear, erect, as long as the glumes.

Frequent weed in open dry wastelands and overgrazed sandy soils.

Flowering : August - November
& Fruiting



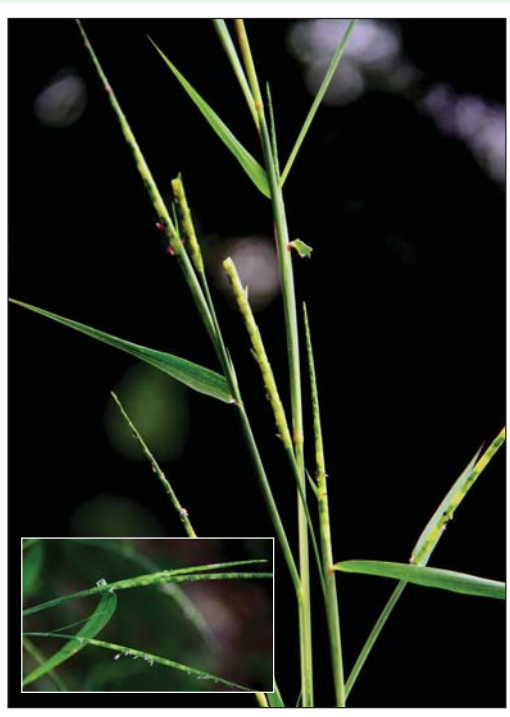
Rottboellia cochinchiensis (Lour.) Clayton (Syn: *Rottboellia exaltata* Linn.f.)

Vernacular name: Bara swati (Beng.); Barsali, Bhursali (H).

Large tall stout annual herb; culm polished, with stiff roots from the lower nodes. Leaves large, broadly linear, flat, hispid hairy; ligule membranous. Inflorescence of solitary, slender, cylindric, spiciform racemes; spikelets binate on the nodes of the fragile rachis, different in sex; joints dorsally flattened. Caryopsis ellipsoid, dorsally compressed, with large hilum.

Very common weed in waste places, forest edges, agricultural fields and homesteads.

Flowering : October - December
& Fruiting



Saccharum spontaneum Linn.

Vernacular name: Kasatandi, Tandi (O); Khansi, Kans (H,Beng.); Kash (Beng.).

Tall, perennial grass, tufted or stoloniferous, glaucous; culms erect or decumbent, solid. Leaves linear, narrow with incurved or rolled up margins. Panicle white-silvery, narrow, 30-60 cm long; more or less whorled on the silky rachis and articulate to it; rachis very fragile. Spikelets very variable; callus hairy, many times longer than the small spikelets. Caryopsis subglobose to narrowly oblong.

Common in open wastelands, along streams and rivers, borders of fields etc.

Flowering : August - February
& Fruiting



Sacciolepis indica (Linn.) Chase

Slender grass, 15-60 cm. Leaves linear, acuminate, glabrous. Panicle cylindrical, spiciform, dense, green or slightly purplish, continuous, with crowded spikelets; spikelets obliquely lanceolate or lanceolate-ovoid, acute or acuminate; pedicels shorter than the spikelet. Lower glume ovate, one-half as long as the spikelet, 3-nerved; upper glume subcymbiform; lower lemma broadly ovate, 9-nerved. Caryopsis elliptic, dorsally compressed.

Fairly common in moist wet places and grassy areas.

Flowering : August - November
& Fruiting



Sacciolepis interrupta (Willd.) Stapf

Vernacular name: Nardula (Beng.).

Aquatic herbs; culms robust, spongy below. Leaves linear, tapering, glabrous, base rounded or subcordate; sheaths glabrous; ligule short, membranous. Panicle long, narrow, spiciform, cylindrical, dense; spikelet usually in interrupted, crowded fascicles, patent or sub-patent, obliquely lanceolate or narrowly ovoid; pedicel shorter than the spikelet. Caryopsis elliptic, both lemma and palea hardened in fruit.

Abundant in marshes, swamps, ditches and along margins of lakes and ponds.

Flowering : July - February
& Fruiting



Setaria pumila (Poir.). Roem. & Schult. [Syn: *Setaria pallidefusca* (Schum.) Stapf & Hubbard; *Setaria glauca* Hack.]

Vernacular name: Siala languda (O); Pinginatchi (Beng.); Bandra, Bandri (H); Bottlegrass, Yellow Foxtail Millet, Yellow Brisde grass (E).

Erect annual herbs; culms tufted, glabrous, geniculate at base, striate above. Leaves narrow, flat, often with long, soft hairs above and villous towards base, tip long filiform; sheaths glabrous; ligule of stiff hairs. Panicle narrowly cylindrical, spiciform, dense. erect; rachis villous; spikelets deciduous, ovoid to elliptic-oblong, with antrorsely barbed bristles; upper lemma rugulose.

One of the most common weeds in waste places and field bunds during post-monsoon period.

Flowering : May - February
& Fruiting



Setaria verticillata (Linn.) P. Beauv.

Vernacular name: Bilei languda (O); Siallanja (Beng.): Rough-bristle grass (E).

Annual herb, culms slender upto 90cm. Leaves flat, linear. Panicle terminal, straight or curved, cylindrical with interrupted clustered spikelets. Spikelets solitary or in clusters of 2-3, oblong-ellipsoid; bristles 1-4, long, retrorsely barbed. Caryopsis oblong or ellipsoid, tightly enclosed in the hardened lemma and palea. Caryopsis oblong or ellipsoid, enclosed in the hardened lemma and palea.

Very common and gregarious in wastelands, hedges and forest floors after rains.

Flowering : September - November
& Fruiting



Sporobolus indicus (Linn.) R. Br. var. *diander* (Retz.) Jovet & Guedes [Syn: *Sporobolus diander* (Retz.) P. Beauv.]

Vernacular name: Kakarchada (O); Bena-Joni (Beng.); Chiriyaka dana, Tandlen (H).

Perennial, tufted slender grass. Leaves very slender, 10-25 cm long, 1.5-3 mm wide, convolute, tapering to a point. Panicle contracted, 10-30 cm long, subspiciform or narrowly pyramidal, panicle effuse at maturity; erecto-patent capillary branches; branches of panicle bare at base. Spikelets crowded. Caryopsis obovoid or pyriform, free within the lemma and palea.

Very common grass in open wet and moist places, roadsides and cultivated fields.

Flowering : June - February
& Fruiting



Urochloa panicoides P. Beauv. [Syn: *Urochloa halopus* (Trin.) Stapf]

Vernacular name: Jalganti, Barajalganti (Beng.); Kuri, Kuriya (H).

Tufted annual; culms ascending from prostrate rooting base. Leaves linear to narrowly lanceolate, with scattered tubercle-based hairs, minutely wrinkled-crenulate when dry, base rounded or amplexicaul; sheaths hairy; ligule of stiff hairs. Inflorescence of 4-10 spreading racemes on a common axis; racemes bearing single or sometimes paired spikelets on the rachis; spikelets elliptic, acute. Caryopsis subrotund, strongly flattened.

Commonly occurs in grassy fields and wastelands.

Flowering : May - January
& Fruiting



Vetiveria zizanioides (Linn.) Nash

Vernacular name: Bena (O); Khas-Khas, Kas-kas (Beng.,H); Khas (H); Vetiver (E).

Stout, tufted, rigid grass; rootstock with spongy aromatic roots. Leaves closely distichous at base, suberect, conduplicate, margins setose-scabrid; ligule a mere rim. Panicle oblong or pyramidal, large; racemes with flexuous rachis; joints much longer than the sessile spikelets, tips truncate or slightly oblique, minutely or scarcely ciliolate; joints and pedicels glabrous. Pedicelled spikelets shorter; equally minutely ciliate. Caryopsis oblong, oblique at apex.

Fairly common and often gregarious in open damp or swamy ground, low lands, along borders of rice fields, canals, margins of tanks etc.

Flowering : October - February
& Fruiting



CYCADACEAE

Cycas sphaerica Bedd. (Syn: *Cycas circinalis* Linn. var. *orixensis* Haines)

Vernacular name: Arguna, Odasamari, Rengua, Bhoru (O).

Erect palm-like plants with well-developed stems; armoured by semi-persistent petiole-bases, mostly unbranched. Leaves pinnate; leaf bundles alternating with group of scales; petiole spinous; leaflets 1-nerved; young leaves circinate. Male flowers of a cone-like structure, shortly pedicelled. Female flowers terminal; megasporophylls numerous, spatulate, with 2-5 ovules along margins. Seeds pale reddish-yellow; sarcotesta with fibrous layer.

Sparsely distributed in hilly scrub forests; very commonly planted in parks and gardens.

Flowering : May - August

Fruiting : September - October



Cycas revoluta Thunb.

Vernacular name: Sago Cycas (E).

Stem 1-2 m tall. Leaves crowded at apex; leaflets linear, narrow, 1-nerved, margins revolute, apex spinous; rachis hairy; petiole thick, quadrangular. Megasporophylls numerous, 10-20 cm long, blade somewhat obovate or obovate-oblong, lacinate into villous segments nearly to the centre, segments with spinous acumen; stalk longer than the blade; ovules 4-6, densely hairy.

Fairly common in gardens, parks and as potted ornamental in houses.

Flowering : April - May

Fruiting : June - September



ARAUCARIACEAE

Araucaria columnaris (Forst. f.) Hook.
[Syn: *Araucaria cookii* R.Br. ex D. Don]

Vernacular name: Columnar Araucaria,
Cook's Araucaria (E).

Tree with columnar crown; branchlets frequently overlapping. Leaves closely overlapping, linear, acicular, triangular, curving inwards, pointed, rigid. Male flowers (microstrobili) with numerous stamens. Female flowers: cone scales numerous, consisting of a thick bract above the ovulate scale to which the ovule is adnate. Ripe cone large, broadly ellipsoid or globose.

One of the common garden ornamental trees in the region.

Flowering : Most parts of the year.
& Fruiting



PINACEAE

Pinus roxburghii Sarg. (Syn: *Pinus longifolia* Roxb.)

Vernacular name: Chir, Chil (H); Sarala (H, Beng.); Chir Pine (E).

Tree with symmetrically whorled branches; bark rough, reddish-brown, deeply and reticulately cracked into large irregular thin plates. Leaves in fascicles of 3, linear, slender, sub-triquetrous; sheaths greyish-brown, fimbriate, persistent. Male flowers (catkins) ovoid-cylindric. Female cones on short, stout stalks, spreading or recurved, solitary or in whorls of 3-5, ovoid-conical; scales with thick, pyramidal pointed and somewhat recurved beak.

Often planted in gardens and experimental stations.

Flowering : Most parts of the year.
& Fruiting



CUPRESSACEAE

Juniperus communis Linn.

Evergreen trees with columnar crown, dioecious, 4-10 m tall. Bark thin, scaly, often exfoliating into thin strips. Branches ascending; branchlets erect, terete. Leaves green, simple, stiff and arranged in whorls of 3; younger leaves tend to be more needlelike whereas mature leaves are scale-like; apex acute to obtuse, mucronate. Male strobili sessile or stalked, and female strobili made up of green, ovate or acuminate scales. Cones red at first, ripening to a glaucous bluish-black berry like structure.

Commonly planted along paths in gardens.

Flowering : April - August
& Fruiting



Thuja orientalis Linn.

Vernacular name: Morpankhi, Mayurpankh (H).

Small tree or shrub, mostly branched from near the base. Older scale-leaves brown, clothing the older branchlets, oblong or ovate, cuspidate, on the youngest branchlets green and 4-ranked, imbricate. Cones subglobose or compressed pyriform on short lateral scaly branchlets. Seeds 2-3 only, brown, ovoid or elongate-ovoid, 3-angled.

Very commonly grown in gardens, parks and along paths of institutional premises.

The seeds, which are hard, are broken and the cotyledons eaten after frying.

Flowering : March - April
Fruiting : April - August



PTERIDOPHYTES

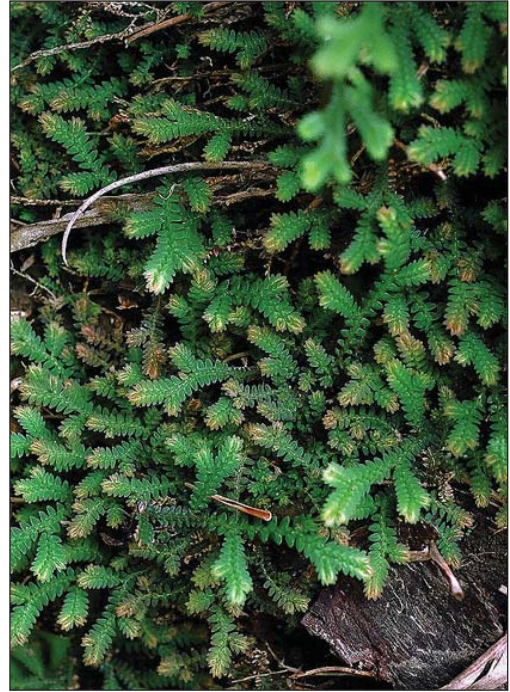
SELAGINELLACEAE

Selaginella repanda (Desv. ex Poir.)
Spring (Syn: *Selaginella plumosa*
Baker)

Stems suberect to erect, pale brown with age, branched from the base, branches erecto-patent, lax, pinnately compound; rhizophores restricted at the base only. Leaves heteromorphic throughout, contiguous, coriaceous, drying brown; lateral leaves spreading, ovate, sub-falcate, median leaves ovate, imbricate, cordate. Strobili tetragonous, single at the apex of the branchlets; sporophylls uniform, ovate, acuminate;

Fairly common in damp and shady places and crevices of rocks under shade.

Fertile : Most part of the year.



DRYNARIACEAE

Drynaria quercifolia (Linn.) J. Sm.

Vernacular name: Garuda pakhi (O);
Garur, Ashva katri (Beng.).

Epiphytic herb. Rhizome creeping, fleshy, with lanceolate-subulate, cordate-based scales. Sterile fronds glossy, pinnatifid or lobed, soon turning brown. Fertile fronds 60-90 cm long, pinnatipartite with oblong acuminate entire segments, costules distinct, veins very reticulate. Sori on the anastomosis, small, in two series between and parallel to the costules.

Common epiphyte on branches of trees and barren rocks in moist forests and village grooves.

Fertile : August - January.



LYGODIACEAE

Lygodium flexuosum (Linn.) Sw.

Vernacular name: Kala mahajal, Mahajal (O); Bhutraj (Beng.).

Climbing fern. Primary pinnae abbreviated to a small knob with hairy apex and bearing a pair of 1-2-pinnate divaricate secondary pinnae on well-grown fronds, ultimate pinnules shortly stalked, linear-oblong, sterile serrulate, with many parallel forked veins, of which one veinlet enters each tooth; fertile pinnules, pectinately lobed with sporangial spikes.

Fairly common in forests, scrubs and hedges.

Fertile : August - February



PTERIDACEAE

Pteris cretica Linn.

Robust tufted fern. Stipes 15-30 cm long, erect. Fronds sub-bipinnate, pinnae few; primary pinnae or primary lobes of the double pinnae linear, acute or obtuse; sterile pinnae usually wider than the fertile, and as well as the barren portion of the fertile frond closely sharply serrate. Sori in a continuous band on the margins except near the base and apex; indusium distinct.

Common in shady moist localities, rock crevices and on old walls and buildings.

Fertile : All the year round.



Pteris vittata Linn. (Syn: *Pteris longifolia* auct. non Linn.)

Densely tufted fern, tip of the rhizome and base of stipes densely clothed with linear acuminate, brown or yellow scales. Stipes very short; frond simply pinnate, rachis hairy, clothed from base to tip with simple 1–30 pinnae on each side, which increase in length from base upwards, often auricled at base. Sori in a continuous band down both sides of the fertile pinnae, with a well-marked pale indusium.

Common in dilapidated walls, buildings and rock crevices under shade.

Fertile : December - April



ADIANTACEAE

Adiantum philippense Linn. (Syn: *Adiantum lunulatum* Burm.f.)

Vernacular name: Kali jhat (Beng., H).

Tufted fern with slender fronds 15-35 cm long including the black, polished, nearly glabrous wiry stipes; pinnae alternate, patent, petioled, semi-orbicular or elliptic-oblong, simple with straight basiscopic edge and curved lobulate acroscopic edge, sporangia on the recurved lobules; stalk of pinnae filiform, rachis black and polished like the stipes; rachis usually ending in a symmetrical flabellate pinna.

Common and gregarious in moist rock surfaces and shady places.

Fertile : September - December



HEMIONITIDACEAE

Hemionitis arifolia (Burm. f.) Moore

Vernacular name: Chakuliya (Beng.).

Small tufted fern with ovate-cordate or hastate fronds; sterile fronds with lobes rounded at the apex; fertile fronds often as broad as long, more hastate and with acute lobes; stipes of fertile frond 20- 30 cm long, chestnut brown, fibrillose towards the base, young hairy all over. Sporangia densely covering undersurface but following the reticulate veins, the costa of the lobes alone more or less bare; sporangia mixed with hairs and scales.

Occasional, in shady moist localities in forests and hilly areas

Fertile : August - January



PARKERIACEAE

Ceratopteris thalictroides (Linn.) Brongn.

Marsh or aquatic, succulent tufted fern, 15-40 cm high. Stipes with large air cells; sterile fronds floating or erect, simple or slightly divided when young or 2-3-pinnatifid with broad oblong segments; fertile arising later, 2-3-pinnate, with linear succulent subtubular (from the recurved margins) segments. Sporangia scattered along the veins, large with short stalks.

Very common in rice fields, low lands and marshy ground near water courses.

Fertile : October - February



MARSILEACEAE

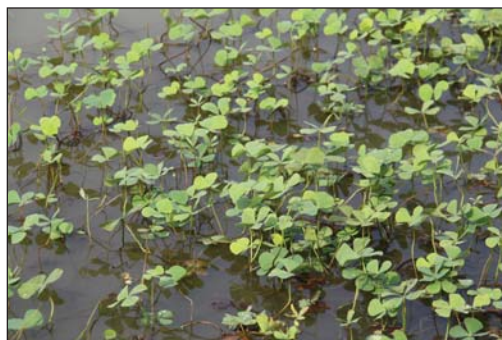
Marsilea minuta Linn.

Vernacular name: Sunsunia (O).

Rhizome widely creeping, branched. Stipes variable, 3-15 cm or more long, slender, glabrous or pubescent; leaflets cruciform, oblanceolate or obovate, variable in size, outer margin rounded, entire or sinuate or crenulate. Pedicels 2-6, basal and slightly connate or free. Sporocarps 2-4, with a broad base, rounded in front, distinctly ribbed and bordered, with two unequal projections or teeth, the upper one longer; sori 8-12.

Common in wet places, field bunds and banks of lakes and pools.

Fertile : November - March



THELYPTERIDACEAE

Ampelopteris prolifera (Retz.) Copel. [Syn: *Dryopteris prolifera* (Retz.) C.Chr.; *Nephrodium priferum* Keys]

Rhizome stout, wide-creeping. Fronds erect and tufted or creeping; erect barren fronds with lanceolate, pinnatifid, lobed or serrate apex, fertile fronds of definite growth; pinnae with crenate margins, sometimes deeply lobed at base; lower surface of pinnae bearing scattered orbicular ciliate scales when young, similar scales cover buds at bases of some pinnae. Sori median on the venules, small, round or oblong when young, usually becoming confluent with age.

Gregarious in swamps, ditches and other stagnant water bodies.

Fertile : November - February.



AZOLLACEAE

Azolla pinnata R.Br.

Small, floating aquatic herb, 1.5-2 cm long and 1 cm wide, usually reddish towards the end of the rainy season. Upper leaf-lobe very small, imbricate, rhomboid or sometimes oblong, obtuse, papillose on upper surface; lower leaf-lobe membranous. Sori paired. Masulae without glochidia. Macrospores with 9 swimming-bladders.

Common free-floating aquatic on lake surfaces, rice fields and swamps.

Fertile : September - October



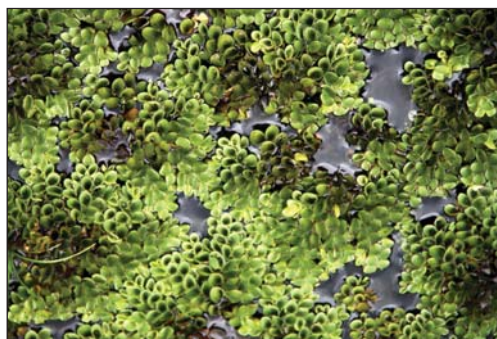
SALVINIACEAE

Salvinia cucullata Roxb. ex Bory

Free-floating, rootless fresh water ferns. Leaves sessile, unequal, subopposite; lamina broadly deltoid with rounded corners, 1 cm long and 1.2-1.8 cm broad, with a shallow notch at tip, basal margins cordate and inflexed to form cup-like shape. Sporocarps sessile, globose; megasporocarps 2-3, distally produced, slightly flattened, rest all microsporocarps.

Quite common and gregarious floating aquatic herb in lakes, ponds, rice fields and ditches.

Fertile : Most part of the year.



LIST OF GARDEN ORNAMENTALS & INTRODUCED PLANT SPECIES

Sl. No.	Botanical Name	Family	Habit
1	<i>Acalypha godseffiana</i>	Euphorbiaceae	Shrub
2	<i>Acalypha hispida</i>	Euphorbiaceae	Shrub
3	<i>Acalypha wilkesiana</i>	Euphorbiaceae	Shrub
4	<i>Adansonia digitata</i>	Bombaceae	Tree
5	<i>Adenantha pavonina</i>	Mimosaceae	Tree
6	<i>Adenium obesum</i>	Apocynaceae	Shrub
7	<i>Adenocalymma comosum</i>	Bignoniaceae	Climber
8	<i>Adiantum capillus-veneris</i>	Polypodiaceae	Herb
9	<i>Adiantum pedatum</i>	Polypodiaceae	Herb
10	<i>Agave angustifolia</i>	Agavaceae	Shrub
11	<i>Agave victoriae</i>	Agavaceae	Shrub
12	<i>Aglaonema commutatum</i>	Araceae	Herb
13	<i>Aglaonema costatum</i>	Araceae	Herb
14	<i>Aglaonema crispum</i>	Araceae	Herb
15	<i>Aglaonema marantifolium</i>	Araceae	Herb
16	<i>Ailanthus excelsa</i>	Simaroubaceae	Tree
17	<i>Aiphanes caryotaefolia</i>	Arecaceae	Tree
18	<i>Allamanda cathartica</i>	Apocynaceae	Climber
19	<i>Allamanda neriifolia</i>	Apocynaceae	Shrub
20	<i>Allamanda schottii</i>	Apocynaceae	Shrub
21	<i>Allamanda violacea</i>	Apocynaceae	Climber
22	<i>Alluaudia comosa</i>	Didiereaceae	Shrub
23	<i>Alocasia amazonica</i>	Araceae	Herb
24	<i>Alocasia lowii</i>	Araceae	Herb
25	<i>Aloe brevifolia</i>	Liliaceae	Herb
26	<i>Alpinia sanderai</i>	Zingiberaceae	Shrub
27	<i>Alpinia zerumbet</i>	Zingiberaceae	Shrub
28	<i>Alternanthera bettzickiana</i>	Amaranthaceae	Shrub
29	<i>Alternanthera versicolor</i>	Amaranthaceae	Shrub
30	<i>Ananas bracteatus</i>	Bromeliaceae	Shrub
31	<i>Ananas comosus</i>	Bromeliaceae	Shrub
32	<i>Anthurium andreaeanum</i>	Araceae	Herb
33	<i>Araucaria cunninghamii</i>	Araucariaceae	Tree
34	<i>Ardisia crispa</i>	Myrsinaceae	Shrub
35	<i>Areca catechu</i>	Arecaceae	Tree
36	<i>Artocarpus altilis</i>	Moraceae	Tree
37	<i>Asclepias curassavica</i>	Asclepiadaceae	Shrub
38	<i>Asparagus plumosus</i>	Liliaceae	Herb
39	<i>Asplenium nidus</i>	Polypodiaceae	Herb
40	<i>Astrophytum asterias</i>	Cactaceae	Herb

Sl. No.	Botanical Name	Family	Habit
41	<i>Astrophytum myriostigma</i>	Cactaceae	Herb
42	<i>Avave parviflora</i>	Agavaceae	Shrub
43	<i>Banisteria laevifolia</i>	Malpighiaceae	Climber
44	<i>Barringtonia racemosa</i>	Lecythidaceae	Tree
45	<i>Bauhinia acuminata</i>	Caesalpiniaceae	Shrub
46	<i>Bauhinia blakeana</i>	Caesalpiniaceae	Tree
47	<i>Bauhinia galpinii</i>	Caesalpiniaceae	Shrub
48	<i>Beaucarnea recurvata</i>	Agavaceae	Shrub
49	<i>Begonia rex</i>	Begoniaceae	Herb
50	<i>Begonia semperflorens</i>	Begoniaceae	Herb
51	<i>Beloperone guttata</i>	Acanthaceae	Shrub
52	<i>Billbergia zebrina</i>	Bromeliaceae	Shrub
53	<i>Bougainville glabra</i>	Nyctaginaceae	Climber
54	<i>Bougainvillea glabra</i>	Nyctaginaceae	Climber
55	<i>Bougainvillea peruviana</i>	Nyctaginaceae	Climber
56	<i>Brassia actinophylla</i>	Caesalpiniaceae	Tree
57	<i>Brownea arrhiza</i>	Caesalpiniaceae	Tree
58	<i>Brownea coccinea</i>	Caesalpiniaceae	Tree
59	<i>Brunfelsia americana</i>	Solanaceae	Shrub
60	<i>Brunfelsia calycina</i>	Solanaceae	Shrub
61	<i>Brya ebenus</i>	Fabaceae	Shrub
62	<i>Caladium bicolor</i>	Araceae	Herb
63	<i>Caladium hortuanum</i>	Araceae	Herb
64	<i>Calathea bella</i>	Araceae	Herb
65	<i>Calathea leonii</i>	Araceae	Herb
66	<i>Calathea ornata</i>	Araceae	Herb
67	<i>Calathea picturata</i>	Araceae	Herb
68	<i>Calathea zebrina</i>	Araceae	Herb
69	<i>Calliandra brevipes</i>	Mimosaceae	Shrub
70	<i>Calliandra haematocephala</i>	Mimosaceae	Shrub
71	<i>Calliandra tweedii</i>	Mimosaceae	Shrub
72	<i>Campsis grandiflora</i>	Bignoniaceae	Climber
73	<i>Cananga kirkii</i>	Annonaceae	Shrub
74	<i>Cananga odorata</i>	Annonaceae	Tree
75	<i>Canna indica</i>	Cannaceae	Shrub
76	<i>Caryota mitis</i>	Arecaceae	Tree
77	<i>Cassia alata</i>	Caesalpiniaceae	Shrub
78	<i>Cassia excelsa</i>	Caesalpiniaceae	Tree
79	<i>Cassia glauca</i>	Caesalpiniaceae	Shrub
80	<i>Cassia javanica</i>	Caesalpiniaceae	Tree
81	<i>Cassia laevigata</i>	Caesalpiniaceae	Shrub
82	<i>Cassia nodosa</i>	Caesalpiniaceae	Tree
83	<i>Cassia renigera</i>	Caesalpiniaceae	Tree
84	<i>Cassia siamea</i>	Caesalpiniaceae	Tree
85	<i>Catesbaea spinosa</i>	Rubiaceae	Shrub
86	<i>Cephalocereus senilis</i>	Cactaceae	Herb
87	<i>Cestrum diurnum</i>	Solanaceae	Shrub
88	<i>Cestrum nocturnum</i>	Solanaceae	Shrub
89	<i>Chamaedorea elegans</i>	Arecaceae	Shrub
90	<i>Chlorophytum comosum</i>	Liliaceae	Herb
91	<i>Chorisia speciosa</i>	Bombacaceae	Tree
92	<i>Chrysalidocarpus lutescens</i>	Arecaceae	Shrub
93	<i>Chrysophyllum cainito</i>	Sapotaceae	Tree

Sl. No.	Botanical Name	Family	Habit
94	<i>Cinnamomum tamala</i>	Lauraceae	Tree
95	<i>Cinnamomum zeylanica</i>	Lauraceae	Tree
96	<i>Ciocos nucifera</i>	Arecaceae	Tree
97	<i>Cissus discolor</i>	Vitaceae	Climber
98	<i>Cleistocactus strausii</i>	Cactaceae	Herb
99	<i>Clerodendrum macrosiphon</i>	Verbenaceae	Shrub
100	<i>Clerodendrum splendens</i>	Vitaceae	Climber
101	<i>Clerodendrum thompsonae</i>	Verbenaceae	Climber
102	<i>Clusia rosea</i>	Clusiaceae	Tree
103	<i>Codiaeum variegatum</i>	Euphorbiaceae	Shrub
104	<i>Coleus amboinicus</i>	Lamiaceae	Herb
105	<i>Coleus blumei</i>	Lamiaceae	Shrub
106	<i>Congea tomentosa</i>	Verbenaceae	Climber
107	<i>Cordia sebestena</i>	Boraginaceae	Tree
108	<i>Cordyline terminalis</i>	Liliaceae	Shrub
109	<i>Coryphantha elephantidens</i>	Cactaceae	Herb
110	<i>Crassula arborescens</i>	Crassulaceae	Shrub
111	<i>Crescentia cujete</i>	Bignoniaceae	Tree
112	<i>Crossandra undulataefolia</i>	Acanthaceae	Shrub
113	<i>Cuphea hyssopifolia</i>	Lythraceae	Shrub
114	<i>Cupressus sussempervirens</i>	Cupressaceae	Tree
115	<i>Cycas pectinata</i>	Cycadaceae	Tree
116	<i>Cycas rumphii</i>	Cycadaceae	Shrub
117	<i>Cymbopogon martinii</i>	Poaceae	Herb
118	<i>Cyrtostachys renda</i>	Arecaceae	Shrub
119	<i>Daedalacanthus neroosus</i>	Acanthaceae	Shrub
120	<i>Dianella tasmanica</i>	Liliaceae	Herb
121	<i>Dieffenbachia amoena</i>	Araceae	Herb
122	<i>Dieffenbachia maculata</i>	Araceae	Herb
123	<i>Dizygotheca elegantissima</i>	Araliaceae	Shrub
124	<i>Dolichandrone spathacea</i>	Bignoniaceae	Tree
125	<i>Dolichothele longimamma</i>	Cactaceae	Herb
126	<i>Dombeya wallichii</i>	Sterculiaceae	Shrub
127	<i>Doryopteris ludens</i>	Polypodiaceae	Herb
128	<i>Dracaena fragrans</i>	Liliaceae	Shrub
129	<i>Dracaena godseffiana</i>	Liliaceae	Shrub
130	<i>Dracaena marginata</i>	Liliaceae	Shrub
131	<i>Dracaena sanderiana</i>	Liliaceae	Shrub
132	<i>Duranta repens "variegata"</i>	Verbenaceae	Shrub
133	<i>Dyckia brevifolia</i>	Bromeliaceae	Herb
134	<i>Echeveria agavoides</i>	Crassulaceae	Herb
135	<i>Echinocactus grusonii</i>	Cactaceae	Herb
136	<i>Echinocereus pectinatus</i>	Cactaceae	Herb
137	<i>Echinopsis multiplex</i>	Cactaceae	Herb
138	<i>Elaeis guineensis</i>	Arecaceae	Tree
139	<i>Elaeocarpus granitus</i>	Elaeocarpaceae	Tree
140	<i>Epithelantha micromeris</i>	Cactaceae	Herb
141	<i>Eranthemum bicolor</i>	Acanthaceae	Shrub
142	<i>Espostoa lanata</i>	Cactaceae	Herb
143	<i>Eucalyptus globulus</i>	Myrtaceae	Tree
144	<i>Euphorbia cotinifolia</i>	Euphorbiaceae	Shrub
145	<i>Euphorbia grandicornis</i>	Euphorbiaceae	Shrub
146	<i>Euphorbia lactea</i>	Euphorbiaceae	Shrub

Sl. No.	Botanical Name	Family	Habit
147	<i>Euphorbia leucocephala</i>	Euphorbiaceae	Shrub
148	<i>Euphorbia millii</i>	Euphorbiaceae	Shrub
149	<i>Euphorbia pucherrima</i>	Euphorbiaceae	Shrub
150	<i>Excoecaria bicolor</i>	Euphorbiaceae	Shrub
151	<i>Ferocactus horridus</i>	Cactaceae	Herb
152	<i>Ficus bengalensis</i> 'Krishnae'	Moraceae	Tree
153	<i>Ficus elastica</i>	Moraceae	Tree
154	<i>Ficus lyrata</i>	Moraceae	Shrub
155	<i>Ficus triangularis</i>	Moraceae	Shrub
156	<i>Filicium decipiens</i>	Sapindaceae	Tree
157	<i>Fugosia hakaefolia</i>	Malvaceae	Tree
158	<i>Furcraea gigantea</i>	Agavaceae	Shrub
159	<i>Gardenia gummiifera</i>	Rubiaceae	Tree
160	<i>Gardenia jasminoides</i>	Rubiaceae	Shrub
161	<i>Gasteria maculata</i>	Liliaceae	Herb
162	<i>Gmelina asiatica</i>	Verbenaceae	Shrub
163	<i>Gmelina hystrix</i>	Verbenaceae	Climber
164	<i>Graptophyllum pictum</i>	Acanthaceae	Shrub
165	<i>Grevilea robusta</i>	Proteaceae	Tree
166	<i>Guaiacum officinale</i>	Zygophyllaceae	Tree
167	<i>Gustavia augusta</i>	Lecythidaceae	Tree
168	<i>Gymnocalycium mihanovichii</i>	Cactaceae	Herb
169	<i>Hamatocactus hamatacanthus</i>	Cactaceae	Herb
170	<i>Hamatocactus setispinus</i>	Cactaceae	Herb
171	<i>Hamelia patens</i>	Rubiaceae	Shrub
172	<i>Haworthia limifolia</i>	Liliaceae	Herb
173	<i>Haworthia truncata</i>	Liliaceae	Herb
174	<i>Hedera helix</i>	Araliaceae	Climber
175	<i>Heliconia rostrata</i>	Musaceae	Shrub
176	<i>Hemigraphis colorata</i>	Acanthaceae	Herb
177	<i>Hibiscus mutabilis</i>	Malvaceae	Shrub
178	<i>Hibiscus rosa-sinensis</i>	Malvaceae	Shrub
179	<i>Hibiscus schizopetalus</i>	Malvaceae	Shrub
180	<i>Hibiscus syriacus</i>	Malvaceae	Shrub
181	<i>Hildewintera aureispina</i>	Cactaceae	Herb
182	<i>Holmskioldia sanguinea</i>	Verbenaceae	Climber
183	<i>Howeia belmoreana</i>	Arecaceae	Shrub
184	<i>Hoya carnosa</i>	Asclepiadaceae	Climber
185	<i>Iresine herbstii</i>	Amaranthaceae	Shrub
186	<i>Ixora chinensis</i>	Rubiaceae	Shrub
187	<i>Ixora coccinea</i>	Rubiaceae	Shrub
188	<i>Ixora singaporensis</i>	Rubiaceae	Shrub
189	<i>Ixora superba</i>	Rubiaceae	Shrub
190	<i>Jacaranda mimosifolia</i>	Bignoniaceae	Tree
191	<i>Jacquemontia violacea</i>	Convolvulaceae	Climber
192	<i>Jacquinia ruscifolia</i>	Theophrastaceae	Shrub
193	<i>Jasminum angustifolium</i>	Oleaceae	Climber
194	<i>Jasminum grandiflorum</i>	Oleaceae	Climber
195	<i>Jasminum nitidum</i>	Oleaceae	Climber
196	<i>Jasminum pubescens</i>	Oleaceae	Shrub
197	<i>Jatropha panduraefolia</i>	Euphorbiaceae	Shrub
198	<i>Jatropha podagrica</i>	Euphorbiaceae	Shrub
199	<i>Juniperus chinensis</i>	Cupressaceae	Tree

Sl. No.	Botanical Name	Family	Habit
200	<i>Kaempferia pulchra</i>	Zingiberaceae	Herb
201	<i>Kalanchoe tomentosa</i>	Crassulaceae	Herb
202	<i>Kigellia pinnata</i>	Bignoniaceae	Tree
203	<i>Kopsia fruticosa</i>	Apocynaceae	Shrub
204	<i>Lagerstroemia speciosa</i>	Lythraceae	Tree
205	<i>Lagerstroemia thorellii</i>	Lythraceae	Tree
206	<i>Lantana sellowiana</i>	Verbenaceae	Shrub
207	<i>Latania loddigesii</i>	Arecaceae	Tree
208	<i>Leea coccinea</i>	Leeaceae	Shrub
209	<i>Licuala grandis</i>	Arecaceae	Tree
210	<i>Liriope muscari</i>	Liliaceae	Herb
211	<i>Liriope platyphylla</i>	Liliaceae	Herb
212	<i>Litchi chinensis</i>	Sapindaceae	Tree
213	<i>Livistona chinensis</i>	Arecaceae	Tree
214	<i>Lobivia famatimensis</i>	Cactaceae	Herb
215	<i>Lophophora williamsii</i>	Cactaceae	Herb
216	<i>Magnolia grandiflora</i>	Magnoliaceae	Tree
217	<i>Magnolia mutabilis</i>	Magnoliaceae	Shrub
218	<i>Magnolia pumila</i>	Magnoliaceae	Shrub
219	<i>Malpighia coccigera</i>	Malpighiaceae	Shrub
220	<i>Malpighia glabra</i>	Malpighiaceae	Shrub
221	<i>Malvaaviscus arboreus</i>	Malvaceae	Shrub
222	<i>Malvaaviscus arboreus</i>	Malvaceae	Shrub
223	<i>Mammillaria bocasana</i>	Cactaceae	Herb
224	<i>Mammillaria compressa</i>	Cactaceae	Herb
225	<i>Mammillaria elongata</i>	Cactaceae	Herb
226	<i>Mammillaria hahniana</i>	Cactaceae	Herb
227	<i>Mammillaria herrerae</i>	Cactaceae	Herb
228	<i>Mammillaria plumosa</i>	Cactaceae	Herb
229	<i>Mammillaria theresae</i>	Cactaceae	Herb
230	<i>Maranta arundinacea</i>	Marantaceae	Shrub
231	<i>Maranta leuconeura</i>	Marantaceae	Shrub
232	<i>Markhamia platycalyx</i>	Bignoniaceae	Tree
233	<i>Mascarena lagenicaulis</i>	Arecaceae	Tree
234	<i>Mascarena verschaffeltii</i>	Arecaceae	Tree
235	<i>Melaleuca leucadendron</i>	Myrtaceae	Tree
236	<i>Melocactus azureus</i>	Cactaceae	Herb
237	<i>Melocactus bahiensis</i>	Cactaceae	Herb
238	<i>Melocactus matanzanus</i>	Cactaceae	Herb
239	<i>Millettia peguensis</i>	Fabaceae	Tree
240	<i>Monstera deliciosa</i>	Araceae	Climber
241	<i>Muehlenbeckia platycada</i>	Polygonaceae	Shrub
242	<i>Mussaeda erythrophylla</i>	Rubiaceae	Shrub
243	<i>Mussaenda frondosa</i>	Rubiaceae	Shrub
244	<i>Mussaenda philippica</i>	Rubiaceae	Shrub
245	<i>Myrtillocactus geometrlzans</i>	Cactaceae	Herb
246	<i>Nandina domestica</i>	Berberidaceae	Shrub
247	<i>Neopterteria napina</i>	Cactaceae	Herb
248	<i>Nephrolepis biserrata</i>	Polypodiaceae	Herb
249	<i>Nephrolepis exaltata</i>	Polypodiaceae	Herb
250	<i>Nerium oleander "variegata"</i>	Apocynaceae	Shrub
251	<i>Notocactus leninghausii</i>	Cactaceae	Herb
252	<i>Notocactus magnificos</i>	Cactaceae	Herb

Sl. No.	Botanical Name	Family	Habit
253	<i>Notocactus scopa</i>	Cactaceae	Herb
254	<i>Ophiopogon jaburan</i>	Liliaceae	Herb
255	<i>Ophiopogon japonicus</i>	Liliaceae	Herb
256	<i>Pachypodium lamerei</i>	Apocynaceae	Shrub
257	<i>Pachypodium geayi</i>	Apocynaceae	Shrub
258	<i>Pachystachys lutea</i>	Acanthaceae	Shrub
259	<i>Pandanus amaryllidifolius</i>	Pandanaceae	Shrub
260	<i>Pandanus sanderi</i>	Pandanaceae	Shrub
261	<i>Pandanus veitchii</i>	Pandanaceae	Shrub
262	<i>Parkia biglandulosa</i>	Mimosaceae	Tree
263	<i>Parmentiera cereifera</i>	Bignoniaceae	Tree
264	<i>Passiflora caerulea</i>	Passifloraceae	Climber
265	<i>Passiflora coccinea</i>	Passifloraceae	Climber
266	<i>Pedilanthus tithymaloides</i>	Euphorbiaceae	Shrub
267	<i>Pelargonium hortorum</i>	Geraniaceae	Herb
268	<i>Pellionia pulchra</i>	Urticaceae	Herb
269	<i>Pentas lanceolata</i>	Rubiaceae	Shrub
270	<i>Peperomia bicolor</i>	Piperaceae	Herb
271	<i>Peperomia obtusifolia</i>	Piperaceae	Herb
272	<i>Pereskia aculeata</i>	Cactaceae	Climber
273	<i>Petrea volubilis</i>	Verbenaceae	Climber
274	<i>Philodendron bipinnatifidum</i>	Araceae	Herb
275	<i>Philodendron elegans</i>	Araceae	Herb
276	<i>Philodendron scandens</i>	Araceae	Herb
277	<i>Phoenix roebelenii</i>	Arecaceae	Shrub
278	<i>Phoenix rupicola</i>	Arecaceae	Shrub
279	<i>Phyllanthus nirousus</i>	Euphorbiaceae	Shrub
280	<i>Pleomele reflexa</i>	Liliaceae	Shrub
281	<i>Pilea cadierei</i>	Urticaceae	Herb
282	<i>Pilea serpyllacea</i>	Urticaceae	Herb
283	<i>Pinus longifolia</i>	Pinaceae	Tree
284	<i>Pittosporum tobira</i>	Pittosporaceae	Tree
285	<i>Platynerium bifurcatum</i>	Polypodiaceae	Herb
286	<i>Plumbago capensis</i>	Plumbaginaceae	Shrub
287	<i>Podocarpus nerifolius</i>	Podocarpaceae	Tree
288	<i>Polyalthia longifolia 'angustifolia'</i>	Annonaceae	Tree
289	<i>Polyalthia longifolia 'pendula'</i>	Annonaceae	Tree
290	<i>Polypodium aureum</i>	Polypodiaceae	Herb
291	<i>Polypodium punctatum</i>	Polypodiaceae	Herb
292	<i>Polyscias balfouriana</i>	Araliaceae	Shrub
293	<i>Polyscias filicifolia</i>	Araliaceae	Shrub
294	<i>Polyscias guilfoylei</i>	Araliaceae	Shrub
295	<i>Porana paniculata</i>	Convolvulaceae	Climber
296	<i>Portulacaria afra</i>	Portulacaceae	Shrub
297	<i>Pritchardia pacifica</i>	Arecaceae	Tree
298	<i>Pseuderanthemum atropurpureum</i>	Acanthaceae	Shrub
299	<i>Pseudocalymma alliaceum</i>	Bignoniaceae	Climber
300	<i>Pteris dentata</i>	Polypodiaceae	Herb
301	<i>Pteris ensiformis</i>	Polypodiaceae	Herb
302	<i>Pterygota alata</i>	Sterculiaceae	Tree
303	<i>Ptychosrma macarthurii</i>	Arecaceae	Shrub
304	<i>Pyrostegia venusta</i>	Bignoniaceae	Climber
305	<i>Quassia amara</i>	Simaroubaceae	Shrub

Sl. No.	Botanical Name	Family	Habit
306	<i>Ravenala madagascariensis</i>	Musaceae	Tree
307	<i>Ravenia spectabilis</i>	Rutaceae	Shrub
308	<i>Rhapis excelsa</i>	Arecaceae	Shrub
309	<i>Rhoeo spathacea</i>	Commelinaceae	Herb
310	<i>Rosa hybrida</i>	Rosaceae	Shrub
311	<i>Roystonea regia</i>	Arecaceae	Tree
312	<i>Russelia juncea</i>	Scrophulariaceae	Shrub
313	<i>Sanchezia nobilis</i>	Acanthaceae	Shrub
314	<i>Sansevieria cylindrica</i>	Liliaceae	Herb
315	<i>Sansevieria trifasciata</i>	Liliaceae	Herb
316	<i>Schefflera arboricola</i>	Araliaceae	Shrub
317	<i>Scindapsus aureus</i>	Araceae	Climber
318	<i>Sedum morganiatum</i>	Crassulaceae	Herb
319	<i>Senecio radicans</i>	Asteraceae	Herb
320	<i>Serissa foetida</i>	Rubiaceae	Shrub
321	<i>Sesbania grandiflora</i>	Fabaceae	Tree
322	<i>Setcreasea purpurea</i>	Commelinaceae	Herb
323	<i>Spathiphyllum cannaefolium</i>	Araceae	Herb
324	<i>Spathodea campanulata</i>	Bignoniaceae	Tree
325	<i>Sterculia alata</i>	Sterculiaceae	Tree
326	<i>Sterculia foetida</i>	Sterculiaceae	Tree
327	<i>Strobilanthes dyerianus</i>	Acanthaceae	Shrub
328	<i>Strophanthus gratus</i>	Apocynaceae	Climber
329	<i>Sulcorbutia arenacea</i>	Cactaceae	Herb
330	<i>Swietenia macrophylla</i>	Meliaceae	Tree
331	<i>Swietenia mahagoni</i>	Meliaceae	Tree
332	<i>Syngonium podophyllum</i>	Araceae	Climber
333	<i>Tabebuia avellanadae</i>	Bignoniaceae	Tree
334	<i>Tabebuia chrysantha</i>	Bignoniaceae	Tree
335	<i>Tabebuia donnell-smithii</i>	Bignoniaceae	Tree
336	<i>Tabebuia rosea</i>	Bignoniaceae	Tree
337	<i>Tabemaemontana coronaria</i>	Apocynaceae	Shrub
338	<i>Tacca chantrieri</i>	Taccaceae	Herb
339	<i>Tecoma gaudichaudi</i>	Bignoniaceae	Shrub
340	<i>Tecoma stans</i>	Bignoniaceae	Shrub
341	<i>Tecomaria capensis</i>	Bignoniaceae	Shrub
342	<i>Terminalia catappa</i>	Combretaceae	Tree
343	<i>Tetracera sarmentosa</i>	Dilleniaceae	Climber
344	<i>Thelocactus bicolor</i>	Cactaceae	Herb
345	<i>Thrinax argentea</i>	Arecaceae	Shrub
346	<i>Thryallis glauca</i>	Malpighiaceae	Shrub
347	<i>Thuja orientalis</i>	Cupressaceae	Tree
348	<i>Thunbergia erecta</i>	Acanthaceae	Shrub
349	<i>Thunbergia grandiflora</i>	Acanthaceae	Climber
350	<i>Tradescantia albiflora</i>	Commelinaceae	Herb
351	<i>Vernonia elaeagnifolia</i>	Asteraceae	Climber
352	<i>Vitex agnus-castus</i>	Verbenaceae	Shrub
353	<i>Washingtonia filifera</i>	Arecaceae	Tree
354	<i>Wormia burbidgii</i>	Dilleniaceae	Shrub
355	<i>Wrightia tomentosa</i>	Asclepiadaceae	Tree
356	<i>Yucca aloifolia</i>	Liliaceae	Shrub
357	<i>Zamioculcas zamiifolia</i>	Araceae	Shrub
358	<i>Zebrina pendula</i>	Commelinaceae	Climber

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GLOSSARY OF BOTANICAL TERMS USED IN THE TEXT

Abaxial	The side of a lateral organ away from the axis
Accrescent	Increasing, enlarging, like calyx after flowering.
Achenes	A small, hard, dry indehiscent fruit strictly of one free carpel.
Acuminate	Tip drawn out into a narrow prolonged termination
Acute	Tip forming an acute angle, without a special tapering
Adnate	Attached to the back of the anther or stem
Aggregate fruit	A collection of small simple fruits derived from a flower with several free carpels.
Amplexicaul	Stem-clasping, when the petiole of leaf is dilated at base and embrace the stem.
Androgynous	With male and female flower on the same plant.
Apiculate	Pointed at ends.
Appressed	Laying flat for the whole length of the organ.
Aril	Major or minor outgrowth of various kinds which develop from any part of the seed, funicle, integuments, chalaza or micropyle
Attenuate	Thin tapered shortened
Awns	A bristle like appendages specially on glumes of grasses
Baccate	Fruit pulpy with seeds immersed in pulp.
Berry	A fleshy fruit with usually a massive, soft and juicy pericarp which is differentiated into outer epicarp and a massive fleshy mesocarp
Bifarious	Arranged in two rows
Brachiate	Cross arm, when branches spread and widely diverge.
Bracteate	Provided with bracts.
Caducous	Falling off early.
Caespitose	Growing in tufts like grass
Campanulate	Bell-shaped
Canaliculate	A diminutive of canal
Capitate	Head-shaped or at the apex.
Capitulum	Inflorescens like a head.
Capsule	A dry dehiscent fruit formed from a multicarpellary syncarpous gynoecium.
Carinate	With keel like a boat.
Caryopsis	A one-celled, one-seeded superior fruit, with pericarp united to the seed
Cauliflorous	Stem or stalk flowering
Cauline	Confined to stems
Cernuous	Noding, drooping.
Chartaceous	Papery or paper- like
Ciliolate	finely fringed.
Circinate	Rolled up spirally like a watch spring from the apex to the base
Circumscissile	Fruit opening by apical lids.
Clavate	Club-shaped, thickened towards the apex
Coccus	One-seeded portion of a dry fruit that breaks up

Conduplicate	Folded together lengthwise
Confluent	Blended into one, passing by degrees one into the other.
Connate	Born at the same time
Cordate	Heart-shaped.
Coriaceous	Tough and rigid, leathery
Corona	Anybody which intervenes between corolaa and stamen
Corymb	A raceme relatively shorter and broader, the lower flowers bearing longer stalks relatively to the upper ones so that all the flowers reach the same level
Costa	Mid rib
Crenate	Leaf margin with rounded teeth.
Cucullate.	Cup-shaped
Cuneate	Wedge shaped, triangular
Cuspidate	Tipped with a sharp rigid point
Deciduous	Lasting only for a single season
Declinate	Bent downward; turned aside
Decomound	A general name applied to much or irregularly branched or dissected leaves
Decumbent	Reclining
Decurrent	Running down
Decussate	The successive pairs of leaves stand at right angle to one another
Dentate	Teeth-like
Dichasial	Two branched cymes
Dichotomous	With forked boughs
Didymous	An androecium of two types of stamens.
Dioecious	The male and female organs in flowers present in different plants
Distichous	Arranged in two rows.
Divaricate	Widely spreading apart
Drupe	A fleshy fruit having its pericarp differentiated into outer epicarp, middle mesocarp and inner stony endocarp
Echinate	Prickly or spiny
Elliptic	Oblong but ends tapering towards both the ends
Emarginate	With a terminal notch
Endocarp	Inner layer of a fruit wall.
Endosperm	Nutritive tissue developed in the embryo-sac of the plant
Ensiform	Sword-shaped
Epicalyx	A collection of bracteoles on the outside of the calyx
Exarillate	With out aril in the seed
Exfoliating	Falling away in flakes, layers or scales, as of some barks
Exocarp	Outer layer of the pericarp
Exserted	Protruded beyond
Falcate	Sickle-shaped
Farinaceous	Mealy; yielding mealy powder, cereals, starch
Fascicle	A close bundle of flowers
Fastigiately	Parallel clustered and erect
Ferrugineous	Rust coloured
Filiform	Slendr, thread-like
Fimbriate	With the margin boarded by long slender processes
Fistular	Hollow through out its length
Flabellate	Fan-shaped
Flexuose	Bent alternately in opposite direction
Foetid	Having a strong offensive smell
Foliaceous	Leaf shaped
Follicles	A fruit of one carpel, opening by a ventral suture to which the seeds are attached

Fronds	The foliage of ferns
Fulvous	Yellow, towny
Geniculate	Abruptly bent so as to resemble a knee-joint
Gibbous/ gibbose	A pouch like enlargement of the base of the organ
Glabrous	Surface smooth; without any hair
Glassy	Glass-like
Glaucous	Covered with bluish waxy gloss
Globose	Nearly spherical
Glochidiate	Pubescent with barbed bristles
Glutinous	Gluey, sticky, tenaceous
Gynandrophore	A column bearing stamens and pistils
Gynophore	Internode between the androecium and gynaecium
Hastate	Halbert shaped, sagittate, with the basal lobes turned outward
Hilum.	The scar left on a seed where formerly attached to the funicle or placenta.
Hirsute	Hairy
Hispid	Covered with rough bristly hair
Hoary	White or greyish white
Hyaline	Colourless or translucent
Hypanthium	Flat or concave receptacle of a perigynous flower
Hypocarp	An enlarged growth of the peduncle beneath the fruit
Hypogynous	Free from but inserted beneath the gynoecium
Imbricate	Overlapping
Imparipinnate	With an odd leaflet at the end
Incrassate	Thickened, made stout
Indehiscent	Fruits which do not open to disperse their contents
Indumentum	Any covering, as hairyness
Insidid	Tasteless
Involucre	A ring of bracts surrounding several flowers.
Keeled	Petals with longitudinal narrow outgrowth or ridge
Kernel	Seed inside a stony endocarp of a drupe
Lacerate	Irregularly cut
Lanceolate	Flattened, 2-3 times as long as broad, widest in the middle
Lemma	The flowering glume of a grass
Lenticels	Pores in the periderm of a woody stem
Ligule	A tongue-shaped structure enclosing grass culms
Lyrate	Lyre- shaped; pinnatifid with terminal lobe large and rounded, lower lobes small.
Mericarps	A portion of a fruit that splits away like a perfect fruit.
Mesocarp	The middle layer of the periderm
Mitriiform	mitre shaped
Moniliform	beaded structure, necklace shaped
Monoecious	Having separate male and female flowers, but in the same plant
Mottled	Spotted or blotchy.
Mucilaginous	Secreting of with sticky substance
Mucronate	Leaf tipped with a short sharp point formed by the continuation of the mid-rib.
Muricate	Rough with short and hard tubercular excrescences
Obconic	Conical but attached at the narrower end.
Oblong	Elliptical but blunt at each end, having nearly parallel sides
Obovate	Having the general shape of the longitudinal section of an egg
Obtuse	Rounded or blunt
Operculum	A lid or cover
Orbicular	Flat, with a circular or almost circular outline.
Ovate	Shaped like the longitudinal section of an egg, widest below the middle

Ovoid	Solid, like an egg in form, and attached by the broader end.
Ovules	The organ in the ovary, which after fertilization and subsequent development, becomes a seed.
Palea	The inner bract or glume in grasses
Palmate	Having several (5-7) lobes, segments, etc, spreading from the same point, like the fingers of the hand.
Palmilobed	Digitately lobed like palmleaf.
Panduriform	Fiddle-shaped
Panicle	A branched raceme, with each branch bearing a raceme of flowers
Pappus	Various tufts of hairs on achenes or fruits
Paripinnate	Compound pinnate leaf which has no terminal leaflet (have even number of leaflets)
Pectinate	Comb-like
Pedate	Palmetly divided or parted with the lateral divisions into two clefts
Pedicellate	Flowers or fruits having stalk
Peduncle	Stalk of a flower or inflorescence
Pellucid	Wholly or partially transparent.
Perianth	The floral envelope; it includes the calyx and corolla or any of them.
Pericarp	Body of a fruit developed from the ovary wall and enclosing the seed
Pilose	Bearing scattered simple stiff hairs
Pinnae	A primary division of a pinnate leaf.
Pinnatifid	Pinnately cleft or divided.
Plaited	Plicate
Pluriseriate	In several series/ layers/ lines.
Pome	A false fruit, the greater part of which is developed from receptacle of the flower and not from the ovary.
Poniard	Horn-shaped
Praemorse	As though the end were bitten off
Prostrate	Said of a stein which lies on the ground for all or most of its length.
Pseudocarp	False fruit
Puberulous	Slightly pubescent
Pubescent	Covered with fine hairs
Pulvinate	A portion of the petiole usually swollen.
Pungent	Having a strong, sharp taste or smell
Pyrenes	A small stone of drupe or similar type of fruit
Pyriform	Pear-shaped
Racemiform	Like a raceme
Rachis	The main axis of an inflorescence or a compound leaf.
Radical	Arising from the root or its crown
Ramiflorous	Flowering on the branches
Receptacle	Enlarged end of a flower-stalk or peduncle bearing the flowers
Reniform	Kidney-shaped
Repand	With slightly uneven margin
Reticulate	Having the surface marked by a network of fine upstanding ridges
Retrorsely	With prickles turned back or down
Retuse	With a shallow notch at a rounded apex
Revolute	Rolled back from the margin or apex
Rigidulous	Some what rigid
Rosette	A cluster of leaves or any organ
Rugose	Having a wrinkled surface
Saccate	Like a sac or bag
Sagittate	Arrow-shaped

Salver	Funnel-shaped
Sarmentose	A long slender runner or stolon
Scabrid	Having a rough or file-like surface
Scandent	Climbing
Scapigerous	Scapae-bearing; a leafless floral axis bearing flowers
Schizocarp	Dehiscent or splitting fruit
Scorpioid	Branches developing alternately to left and right but do not lie in the same plane
Sericeous	Silky
Serrate	Toothed margin with pointed teeth projecting forwards
Serrulate	Serrate but with very small teeth
Sessile	Lacking a stalk
Setaceous	Bristle like
Sinuate	With a deep wavy and cut margin
Spadix	A spike of flowers with a fleshy axis, enclosed in a spathe
Spathe	A large bract, often coloured. Or membranous, enclosing a spadix.
Spathulate	Spoon-shaped
Spiciform	Spike like
Spike	An indeterminate inflorescence with sessile flowers on a common elongated axis.
Spinescent	Ending in a spine or sharp point
Spinulose	With small spines or spinules
Squarrose	Rough or scurfy with spreading and outstanding processes
Staminode	A sterile or abortive stamen
Stellate	Star-like
Stoloniferous	Sending out stolons or suckers/ runners.
Straggling	Diffuse climber
Stramineous	Straw coloured or straw like
Strigose	Bearing hairs which are usually rough and all pointing in the same direction
Subulate	Awl shaped
Succulent	Juicy, soft and thick
Suffruticose	Some what shrubby
Syncarpium	A multiple fleshy fruit
Tendrils	A stem, leaf or part of a leaf modified as a filamentous structure, used by many climbers for attachment.
Terete	Cylindrical.
Tessellated	Chequer worked
Testa	Seed coat
Thalamus	Receptacle of a flower or group of flowers
Tomentose	Covered with a felt or cottony hairs, downy
Torulose.	Cylindric with swollen portions at intervals
Truncate	Ending abruptly, as if cut off
Tuberculate	Beset with knobly projections or excrescences
Turbinate	Shaped like a top
Umbellate	Having the inflorescence of umbels or umbrella form
Umbonate	Bearing an umbo or boss in the centre
Uncinate	Hooked
Urceolate	Hollow and contracted at mouth like a pitcher or urn.
Urticle	Fruit surrounded by membranous sac.
Venose	Having veins
Ventricose	Swelling or inflated on one side
Verrucose	Full of warts.
Viscid	Sticky or glutinous

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ISBN: 13-978-81-920657-0-2



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