NAM COLLEGE KALLIKKANDY

Accredited by NAAC with 'B' Grade
Affiliated to Kannur University

VIDYAGIRI, P.O. KALLIKKANDY
KANNUR DISTRICT, KERALA PIN - 670 693
E-mail: namcollege@yahoo.in
TEL: 0490- 2463067

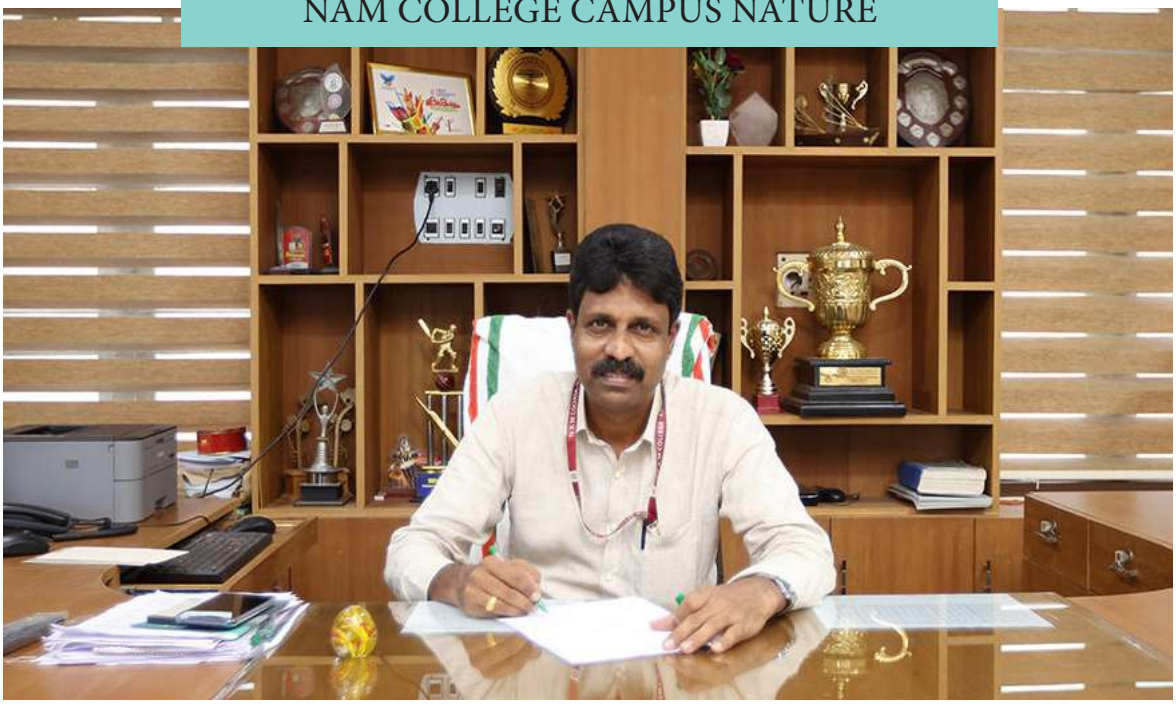
Dear Nature Club Members,

I want to express my heartfelt appreciation for your unwavering dedication to the preservation of nature. Your efforts in the Nature Club have made a significant impact on our college campus and beyond.

The diverse trees and 40 medicinal plants that flourish within our college grounds are a testament to your hard work and passion. Through your commitment, you have created a vibrant ecosystem that serves as a source of inspiration and learning for all.

The recent creation of the book "Flora and Medicinal Plants of N A M College Campus" showcases your profound knowledge and commitment to sharing the wonders of our natural surroundings. This valuable resource will undoubtedly foster a deeper appreciation for the flora and their medicinal properties. I am immensely proud to have such dedicated individuals as part of our Nature Club. Your enthusiasm and dedication serve as an inspiration to others, encouraging them to take action and make a positive difference in protecting our environment.

Warm regards
P P A HAMEED
Gen. Secretary, MEF



It is with great pleasure that I introduce you to our remarkable publication, "Flora and Medicinal Plants of N A M College Campus." As the principal of this esteemed institution, I am immensely proud of the Nature Club's dedication and commitment in compiling this valuable resource. Within the lush grounds of our college campus, we are fortunate to host a diverse array of trees and an impressive collection of 40 medicinal plants. This book serves as a comprehensive guide, unveiling the beauty, significance, and healing properties of these remarkable botanical treasures.

Nature has always been a profound teacher, offering us invaluable lessons in conservation, sustainability, and the interconnectedness of all living beings. Through this book, we hope to ignite a deep appreciation for the flora and medicinal plants that grace our campus, while also fostering a sense of responsibility to protect and preserve our natural environment. I extend my heartfelt gratitude to the Nature Club members for their unwavering passion and diligent efforts in documenting and sharing their knowledge. Their dedication reflects our shared commitment to promoting environmental awareness and sustainable practices.

I encourage you, dear readers, to immerse yourselves in the pages of this book, as it holds a wealth of information waiting to be discovered. Explore the fascinating stories behind each tree and medicinal plant, learn about their traditional uses, and gain insights into the delicate balance between nature and human well-being. May this book serve as a catalyst for a deeper connection with nature and inspire each of us to become stewards of the environment. Together, let us embark on a journey of discovery, appreciating the wonders of the natural world and embracing our role in its preservation

With warm regards,

Dr. MAJEESH T

Principal, NAM College

Dear Friends,

I am thrilled to share my thoughts with all of you through this esteemed magazine. As a taxonomist I have a deep passion for the natural world and its conservation. The beauty and diversity of life on Earth never cease to inspire me. In today's fast-paced world, it is crucial that we pause and reflect on the importance of nature in our lives. Biodiversity, the variety of species that inhabit our planet, is a fundamental cornerstone of thriving ecosystems. Every living organism, from the smallest insect to the largest mammal, has a unique role to play in maintaining the delicate balance of our environment.

However, biodiversity is under threat. Human activities such as habitat destruction, pollution, and climate change are causing the loss of species at an alarming rate. It is our responsibility as stewards of the Earth to take action and protect the natural world that sustains us.

I urge each one of you to connect with nature in meaningful ways. Take the time to explore the wonders of your local environment, learn about the species that call it home, and understand their interconnectedness. Embrace sustainable practices in your daily lives, support conservation organizations, and raise awareness about the importance of preserving biodiversity. Together, let us strive for a future where humans and nature coexist harmoniously. By working collectively, we can make a lasting impact and leave behind a legacy of a healthier and more vibrant planet for future generations.

Regards,

Dr. P DILEEP

Taxonomist and environmentalist.

Welcome to the NAM College Nature Club Magazine!

In this edition, we invite you to embark on a fascinating exploration of the rich biodiversity that thrives within our college campus. Nestled in the heart of our academic pursuits, our campus is a sanctuary of natural wonders waiting to be discovered. The dedicated efforts of our Nature Club have resulted in a meticulously nurtured collection of flora, showcasing the remarkable beauty and benefits of the natural world.

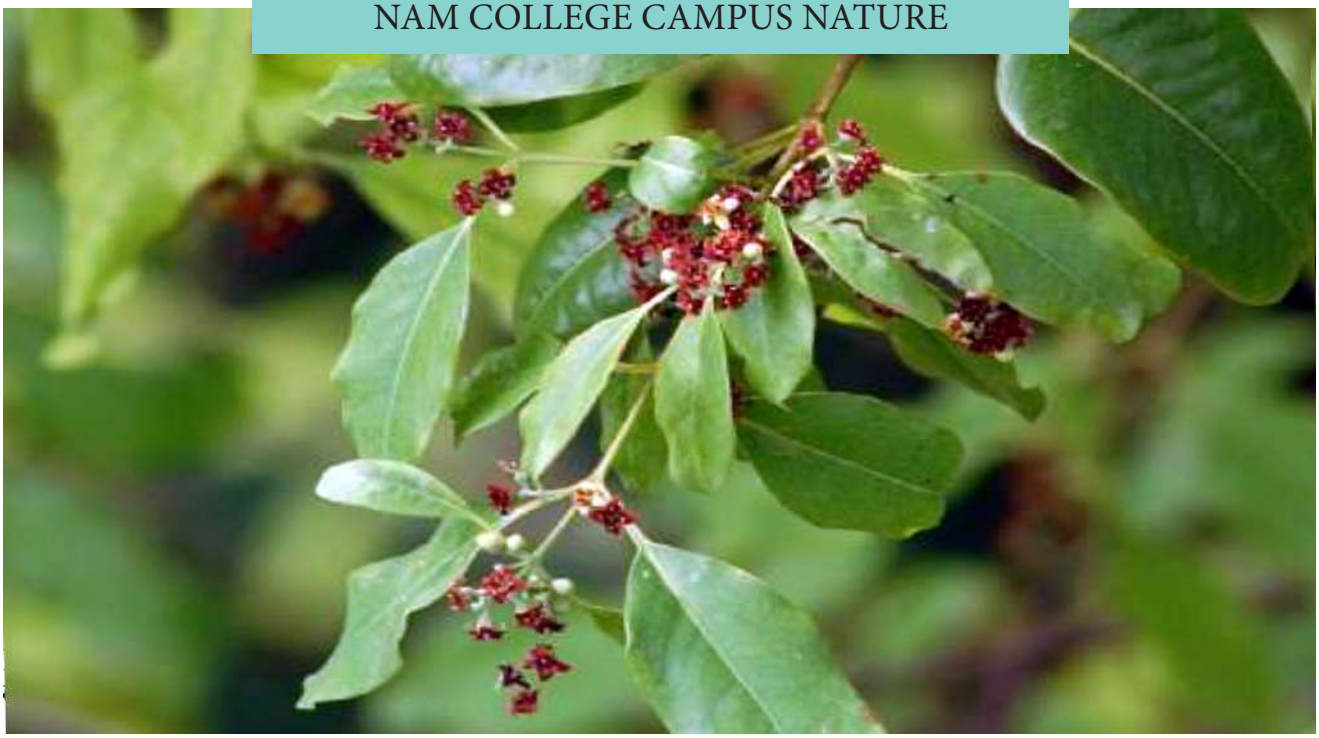
As you wander through our college grounds, you will be greeted by an astounding variety of trees. Among them, the enchanting sandalwood trees hold a special place. Their aromatic presence adds a touch of tranquility to our surroundings, reminding us of the value and significance of these magnificent species. In addition to the awe-inspiring sandalwood trees, our campus boasts an impressive total of 323 plants belonging to 124 different species. Each plant is a testament to the vibrant tapestry of life that thrives within our college. From towering oak trees to delicate cherry blossoms, every species contributes to the rich ecosystem that we are fortunate to be a part of. Beyond the sheer visual spectacle, our campus is home to a living pharmacy of natural remedies. Among the diverse collection of plants, we have carefully cultivated numerous medicinal species, offering valuable healing properties that have been treasured for generations.

This edition of our magazine is an opportunity for you to delve deeper into the wonders of our natural heritage. Through engaging articles, captivating photographs, and informative stories, we aim to ignite your curiosity and foster a deeper connection with the plant life that surrounds us.

As part of our commitment to enhancing your experience and knowledge of our campus flora, we have implemented a QR code system. This innovative feature allows you to easily identify and learn more about the plants you encounter while wandering through our college campus. Simply scan the QR code with your smartphone or tablet, and you will have instant access to detailed information.

Thank you for joining us on this exciting journey through the NAM College Nature Club Magazine. We hope that the uses description and photographs within these pages inspire you to appreciate the rich biodiversity of our campus and encourage you to actively participate in preserving and protecting our natural world.

Best regards,
Dr. Hussain Cheenikuzhiyil
Nature Club Coordinator, NAM College



Santalum Album

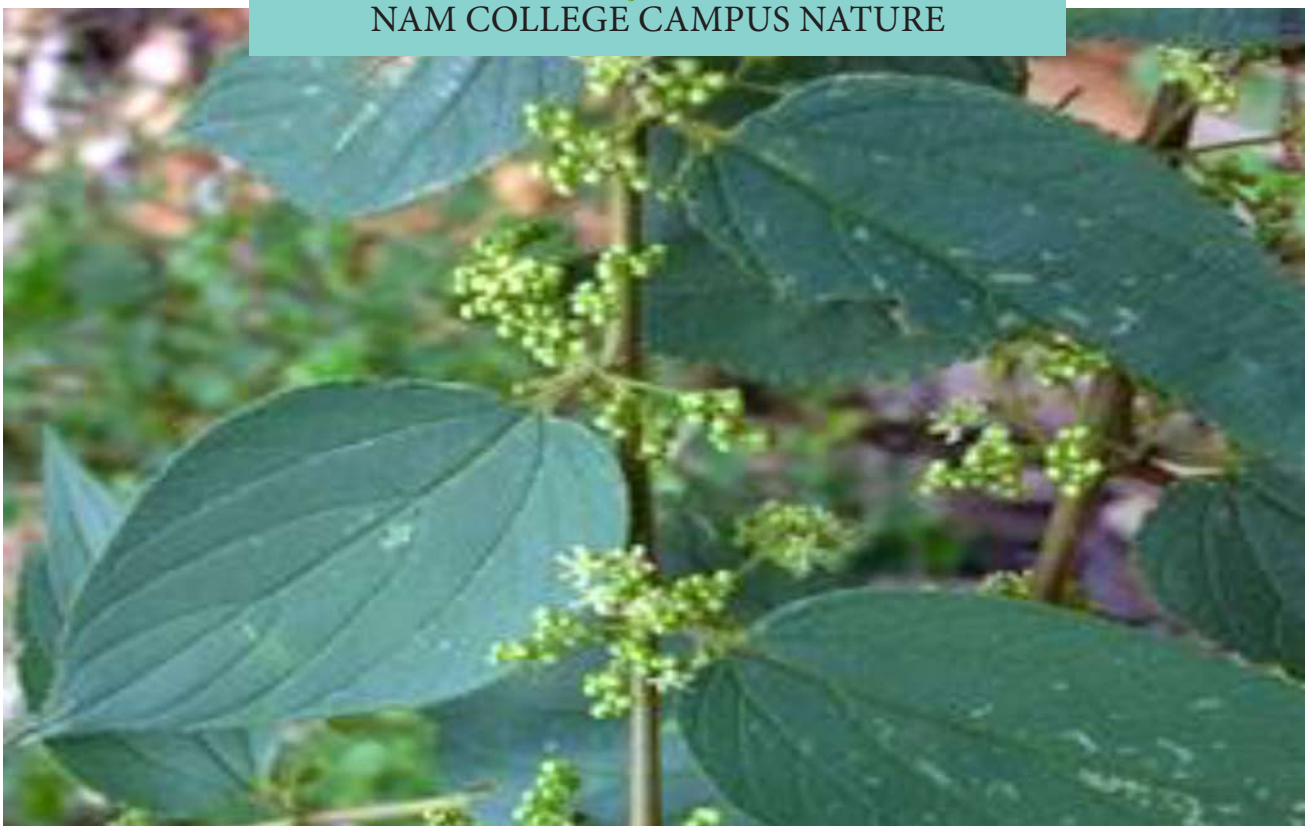
Common names: Indian sandalwood, Chandanam (ചന്ദനം) **Family:** Santalaceae

Description: It is tropical, evergreen tree that grows between 4-9 metres and the traditional source of sandalwood oil. The leaves are thin, opposite and ovate to lanceolate in shape, apex acute, base acute or round, margin entire, glabrous, shiny above and glaucous beneath, coriaceous, lateral nerves 8-13 pairs, pinnate, faint, intercostae reticulate, obscure; petiole 12-18 mm long, slender, glabrous, grooved above.

Flowering & Fruiting: Flowering and fruiing from November-December. Fruit is produced after three years, viabe seeds after five years.

Uses: Primary source of sandalwood and the derived oil. Indian sandalwood has a high santalol content, at about 90%. Sandalwood has antipyretic, antiseptic, antiscabetic, nd diuretic properties. It is also effective in treatment of bronchitis, cystitis, dysuria and diseases of the urinary tract.

IUCN status: Vulnerable (VU)

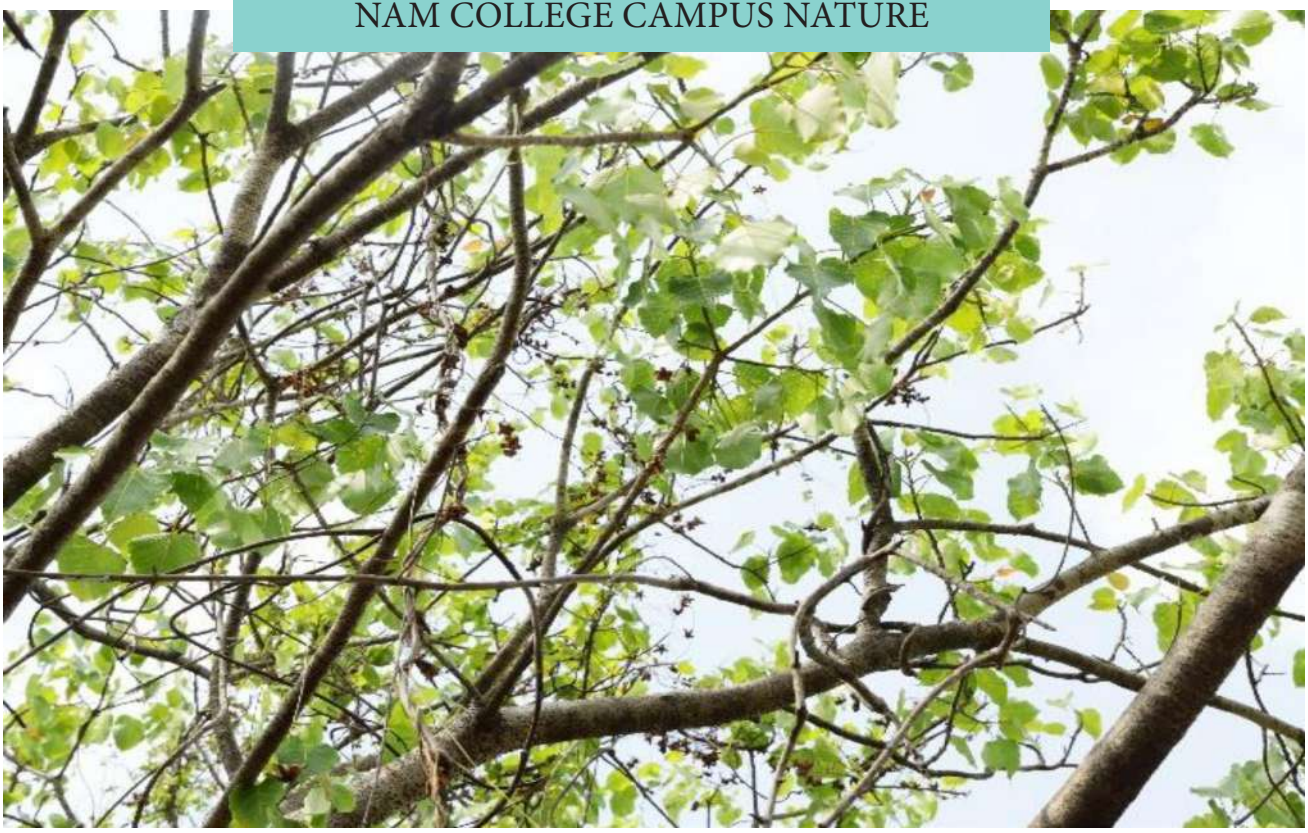


Trema Orientalis

Common names: Charcoal tree, Aamathali
Family: Ulmaceae

Description: Dioeciou tree, to 15 m high, bark 0.6 cm, thin, greyish or bluish-green, rough, lenticellate; branchlets scabrous to adpressed pubescent. Leaves simple, alternate, ovate-lanceolate, ovate or oblong-lanceolate, apex acuminate, base obliquely cordate, margin serrulate, scabrid above, tomentose beneath, chartaceous, 3-5 ribbed from base, prominent; stipules lateral, cauducous; petiole 5-10 mm, slender, tomentose, grooved above; lateral nerves 3-4 pairs, pinnate, prominent, intercostae reticulate, prominent.

Flowering & Fruiting: Flowering from January-March and August-October.
Uses: The wood is suitable for paper and pulp production. The bark can be used for making string or rope and used as waterproofing fishing-lines. Trema orientalis has traditionally been used as a remedy against headache, pains, diarrhoea, fever and hypertension.



Ficus Religiosa

Common names: Peepal tree, Arayal (അരയാൽ) Family: Moraceae

Description: Ficus religiosa is a large dry season-deciduous or semi-evergreen tree up to 30 m tall
and with a trunk diameter of up to 3 m. The leaves are cordate in sgape with a distinctive extended drip tip; they are 10-17 cm long and 8-12 cm broad, with a 6-10 cm petiole.
Flowering & Fruiting: Flowering from February and fruits in the month of May or in the summer season and ripes in the rainy season.

Uses: Ficus religiosa is used in traditional medicine for about fifty types of disordes including asthma, diabetes, diarrhea, epilepsy, gastric problems, inflammatory disorders, infectious and sexual disorders. The trunk is used by framers as soil leveller. After seed harvesting, the rectangular trunk is connected to tractors and levels the soil.

Olea Dioica

Common names: Rose Sandalwood, Edana
Family: OLEACEAE

Description: Trees, to 15 m high, bark grey or brown, rough, shallowly vertically grooved. Leaves simple, opposite, 6-14.5 x 3-6 cm, elliptic, elliptic-oblong or elliptic lanceolate, apex acute to acuminate, base acute, margin serrate or entire, glabrous, punctate, pink when young, coriaceous; petiole 7-10 mm, slender, glabrous, grooved above; lateral nerves 8-12 pairs, pinnate, slender, glabrous; intercostae obscure. Flowers polygamo-dioecious, creamy-white, small, in panicles, axillary or from leafless nodes, pedicellate, 4 mm long, male panicles larger and denser than hermaphrodite. Calyx 1 mm, 4 teethed, campanulate, obtuse, ciliate. Corolla 2.5 mm long, lobes 4, shorter than the tube, triangular, obtuse, hairy within. Stamens 2, included, anthers sessile, 1 mm. Ovary 1.2 mm, 2-celled, superior, 4 ovuled; style 0.7 mm, short; stigma capitate. Fruit a drupe, 8 x 6 mm, ellipsoid, blue; seeds 6 x 4 mm, minutely muriculate.

Flowering & Fruiting: November-April

Uses: Olea dioica an important medicinal tree plants used by local siddha tribes, belongs to the family Oleaceae. The parts such as leaves, bark, root, and fruits used in the traditional medicine to cure skin diseases, rheumatism, fever, & cancer.

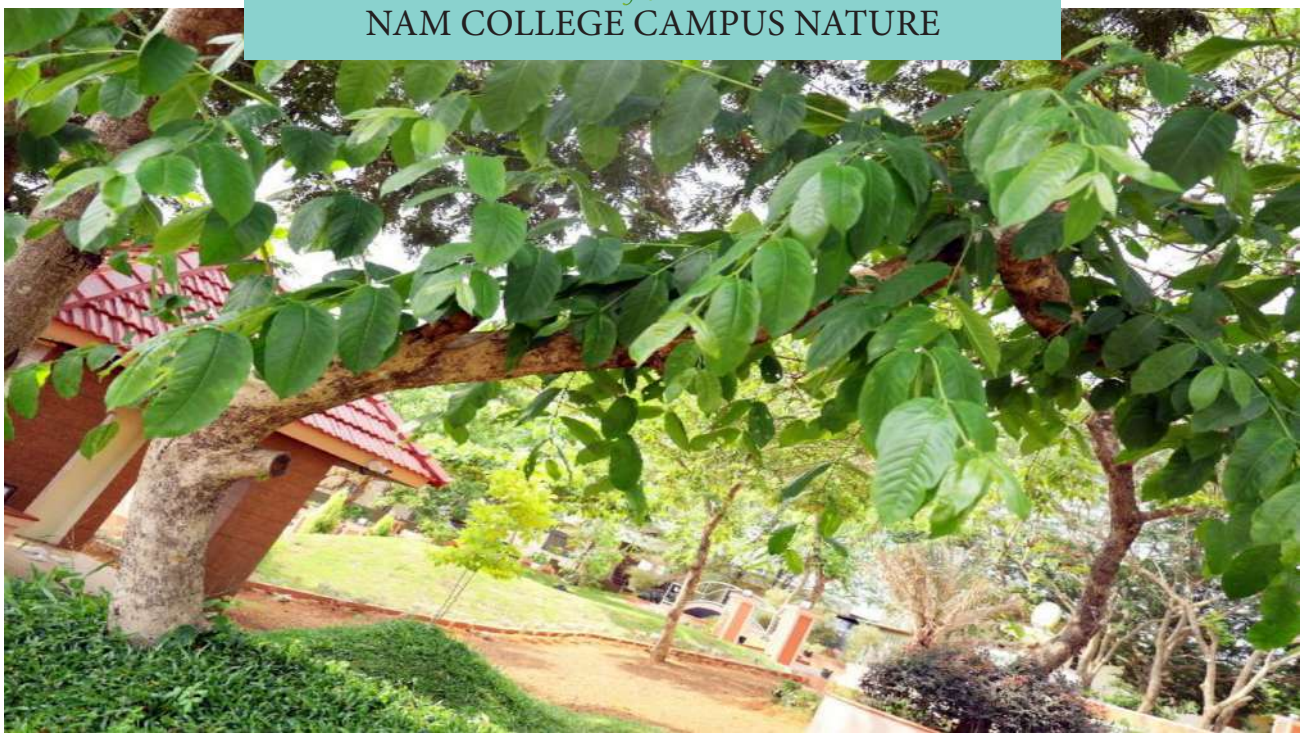
Carallia brachiate

Common names: Corkwood, Vallabham
Family: RHIZOPHORACEAE

Description: Evergreen trees; to 25 m; bark 10-12 mm thick, dark grey, corky, furrowed, prominent-ly pustular-lenticellate; blaze pink, petiole 6-10 mm stout, glabrous; Leaves simple, opposite, 4-11 x 2-7 cm, obovate, or obovate-oblong, apex acute or obtuse, base attenuate or acute, margin entire, recurved, coriaceous, glabrous and glossy; later-al nerves 6-10 pairs, slender, pinnate, obscure, sec-ondary laterals present; intercostae reticulate, obscure. Flowers bisexual, cream coloured, ses-sile, small, in short, trichotomous axillary branch-ing cymes; bracteoles minute, calyx tube campan-ulate, lobes 5-8, ovate, acute, valvate; petals 5-8, clawed, orbicular-cordate, margin deeply lacerate, red-dish, inserted on a crenulate disc; disc 10-16 lobed; stamens 10-16, inserted with them on the disc, one of each pair opposite the petal, slightly longer than the other filament, which is opposite to a se-pal; filaments filiform; anthers small; ovary half inferior, 3-5-celled; ovules 2 in each cell; style subu-late; stigma 4-lobed. Fruit a drupe, 5-6 mm across, red, filiform; seed one, bright orange, sub-reni-form.

Flowering & Fruiting: October-April

Uses: Carallia brachiata is a large tree occurs through out India up to an altitude of 1300 m and of-ten planted as ornamental tree. The fruits and seeds are edible. The seeds contain oil which is used as a substitute for ghee.



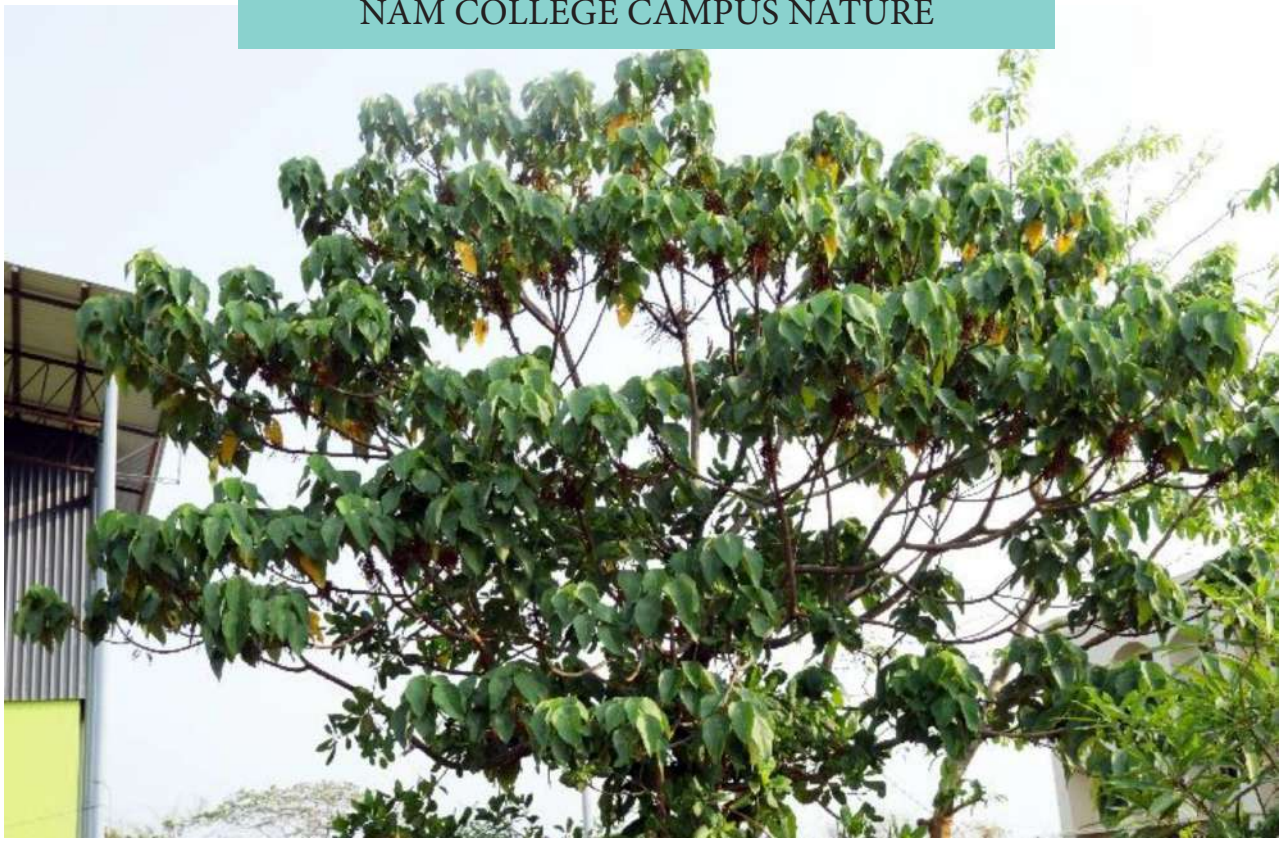
Terminalia paniculata

Common names: Flowering murdah, Kindal, Maruthu.
Family: Combretaceae

Description: Deciduous trees, to 30 m high, bole often fluted; bark 15-20 mm thick, surface brown, rough, vertical fissures shallow, fibrous, young parts silky pubescent; branchlets reddish. Leaves are simple, lower leaves subopposite, upper alternate, apex acute or acuminate, base round, obtuse, cordate or oblique, margin entire, rusty pubescent when young and glabrescent when mature, coria-ceous, 2 sessile gland beneath the base of the lamina or at the junction of petiole and lamina; petiole 12-15 mm long, stout, slightly grooved above, glabrous; lateral nerve 5-15 pairs, pinnate, prominent, arched towards the margin, prominent, intercostae reticulate, obscure.

Flowering & Fruiting: Flowering and fruiting from August-February.

Uses: Terminlia paniculata is a wild tree commonly uses in traditional ayurvedic medicine for the treatment of inflammation of the parotid glands and in menstrual disorder



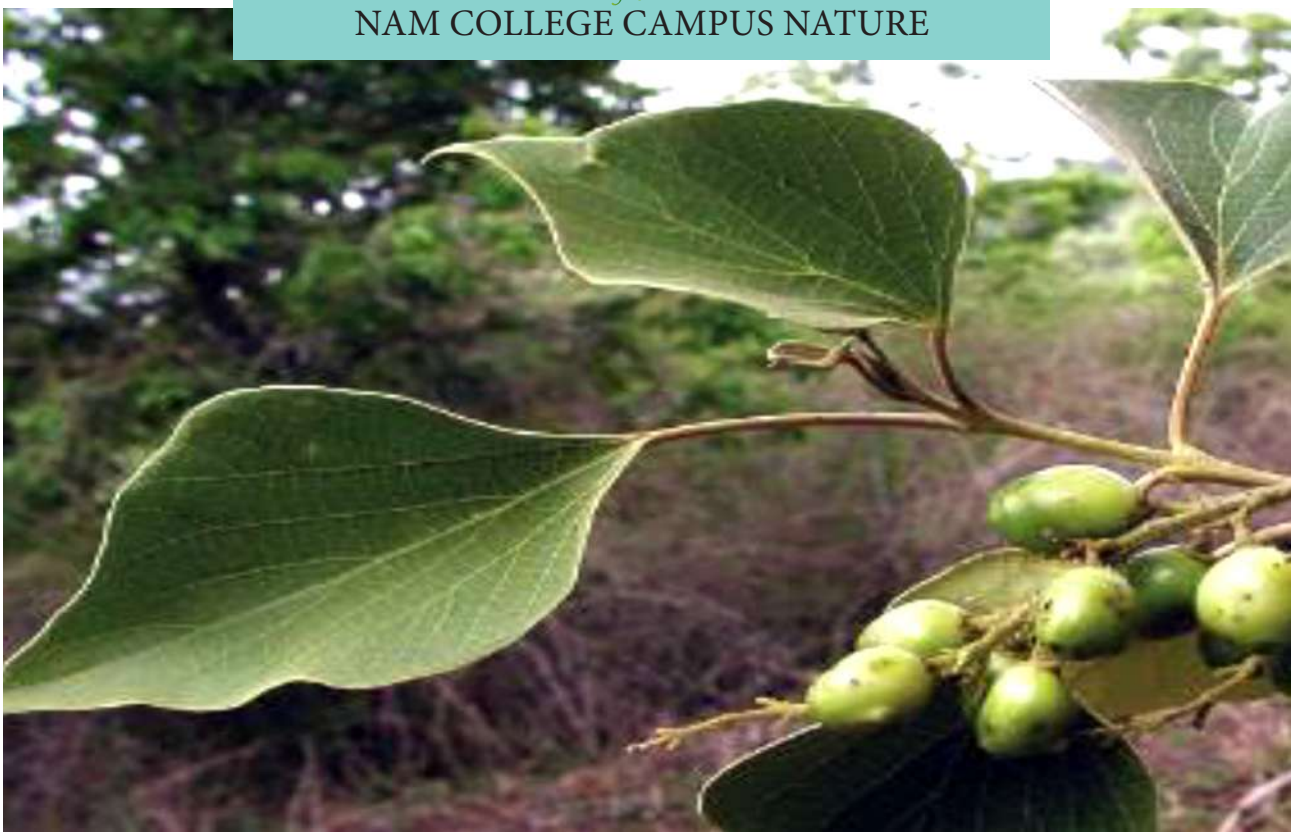
Macaranga peltata

Common names: Kenda, Podini.
Family: Euphorbiaceae

Description: Dioecious trees, to 18 m high; bark surface pale greyish-brown mottled with white, smooth, lenticellate; brittle; exudation red, gummy; branchlets thick, terete, glaucous. Leaves simple, alternate, ovate-orbicular, deltoid-ovate, ovate or orbicular, apex acute or acuminate, base peltate, margin entire, glabrous or glabescent, pubescent with reddish glands beneath, coriaceous; stipules large, lateral, ovate-acuminate, reflexed, caducous; petiole 12-35 mm long, stout, glabrous; lamina 8-10 ribs from base, plmate, prominent beneth; lateral nerves 7-8 pairs, parallel, regular, prominent, intercostae scalariform, much prominent; margin glandular.

Flowering & Fruiting: January-June

Uses: Macaranga peltata is mainly for making wooden pencils and in the plywood industry. Its also used for flavoring. Its leaves are used to wrap jaggery and other sweetmeats.



Gmelina arborea

Common names: Candahar tree, Kumalu
Family: Verbenaceae

Description: Deciduous tree, to 20 m high, bark 8-10 mm thick, white or whitish-grey, smooth, len-ti-cellate, scurfy, exfoliating in the flakes; branchlets stout, tomentose, leaves simple, opposite, broad-ly ovate or ovate, base cordate truncate or round, apex acute or acuminate, margin entire, glabrous above and tomentose beneath, glabrous beneath, coriaceous; petiole 5-12.5 cm long, slender, tomen-tose; nerves 3-5 from base, lateral nerves 3-6 pairs, prominent, puberulent beneath; intercostae sca-lar-iform, prominent; 2 glands on either side f the midrib at the base.

Flowering & Fruiting: January-June

Uses: The whole plant is used in medicine. It is as-tringent, bitter, digestive, cardiotonic, diuretic, laxa-tive and pulmonary and nervine tonic. It improves digestive, memory, helps overcome giddiness and is useful in burning sensation, fever, thirst, emaci-ation, heart diseases, nervous disorders and piles.

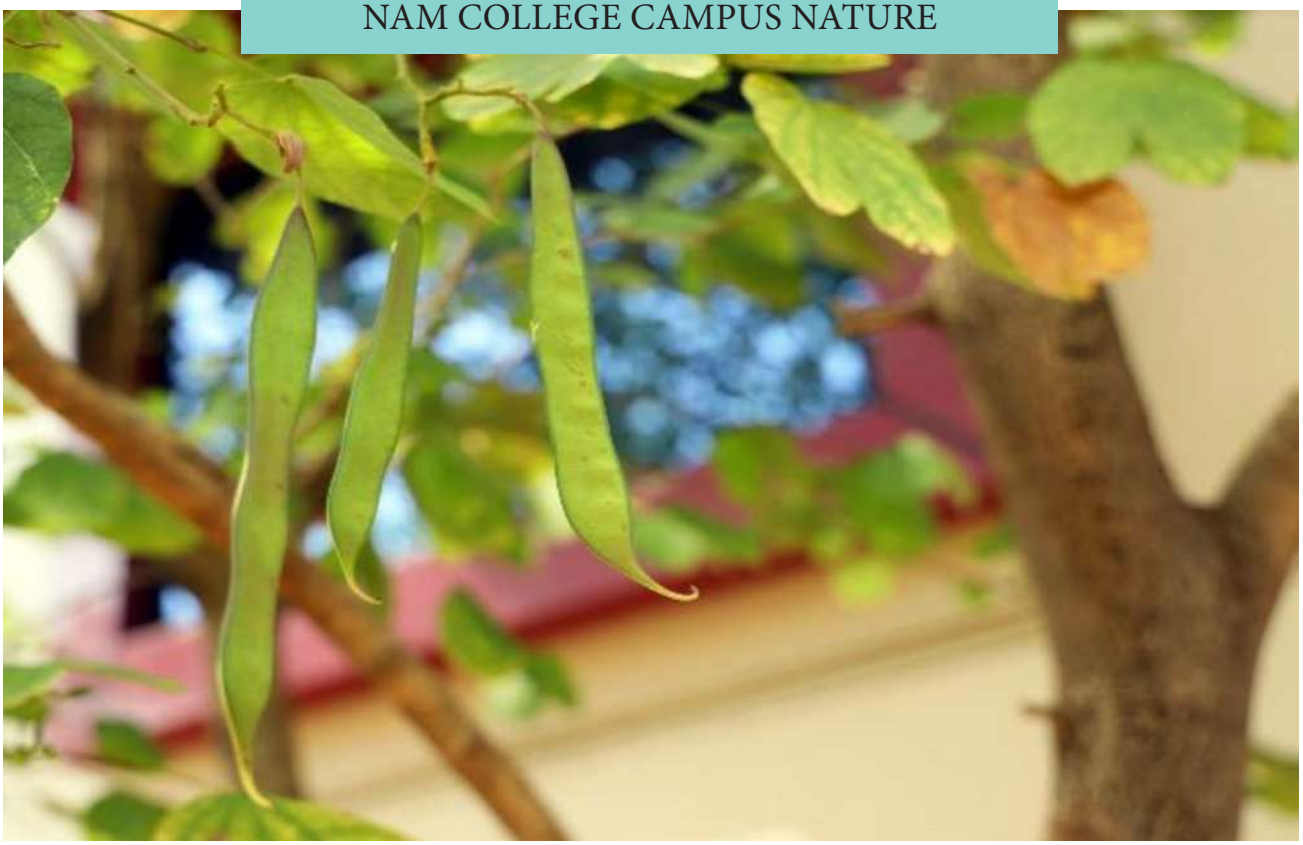
Muntingia calabura

Common names: Bird's cherry, Cotton Candy berry, Pancharappazham
Family: Elaeocarpaceae

Description: Trees, to 7 m high; branches spreading; branchlets densely villous, glandular-pubescent. Leaves simple, alternate; stipules 1 or [2 with 1 reduced], 5 mm long, lateral, filiform, hairy; petiole 5 mm long; lamina 6-11 x 2-4 cm, lanceolate or oblong-lanceolate, base obliquely subcordate, apex acuminate, margin serrate, chartaceous, glandular hairy above, woolly beneath; lateral nerves 3-5 pairs, pinnate, prominent, intercostae reticulate, prominent.

Flowering & Fruiting: Throughout the year.

Uses: M. calabura is planted as a source of timber and fuel, the bark is fibrous and used for making ropes. The fruits are edible and are used to make jam; leaves can be used for making tea. Traditional medicinal uses have been reported for the leaves for headaches, prostate problems, reduce gastric ulcers, bark for antiseptic, flowers for antiseptic, reduce swelling, antispasmodic, and fruits for respiratory problems; antidiarrheic. It is said to help diabetic patients. It is planted as an ornamental species. It offers shelter for wildlife, as it is a source of food for about 60 species of birds and mammals.



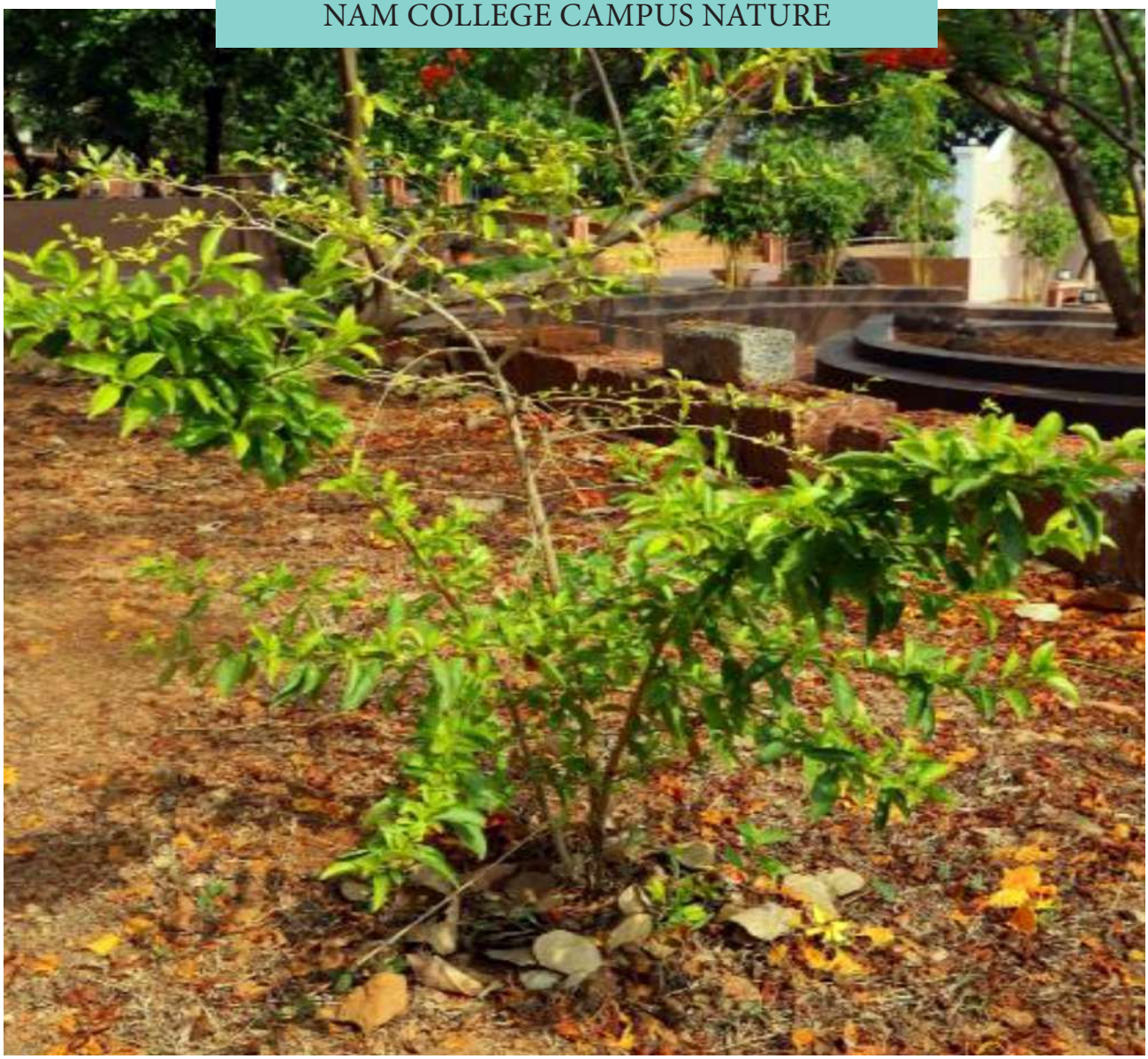
Bauhinia purpurea

Bauhinia purpurea
Common names: Purple Bauhinia, Chuvannamandaram
Family: Fabaceae

Description: Bauhinia purpurea is a small to medim size deciduous tree growing to 17 feet tall. The leaves are 10–20 centimetres long and broad, rounded, and bilobed at the base and apex. The flow-ers are conspicuous, pink, and fragrant, with five petals. The fruit is a pod 30 centimetres long, con-taining 12 to 16 seeds. Leaves are alternate.

Flowering & Fruiting: September-December

Uses: The young leaves and flowers of Bauhinia purpurea are edible. Various parts of the plant are also used in decoctions to treat fever and stomach ailments, as well as being used as an astringent. In Indian traditional medicine, the leaves are used to treat coughs while the bark is used for glandu-lar diseases and as an antidote for poisons. The flow-ers are also used in pickles and curries and is re-garded as a laxative.



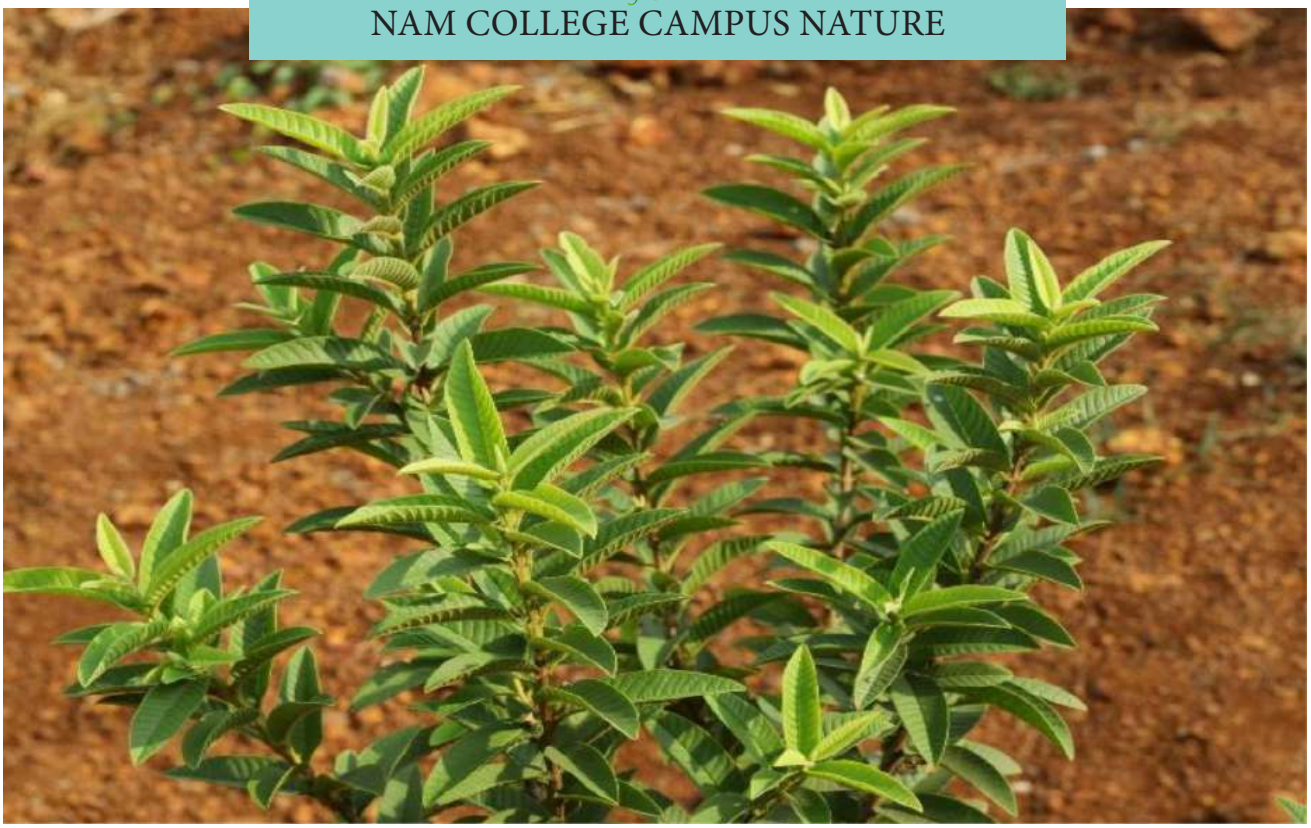
Duranta erecta

Common names: Golden Dewdrop, Duranta
Family: Verbenaceae

Description: Shrubs; branches often spiny, terete. Leaves 2.5 - 5.5 x 2-4 cm, elliptic-ovate or obo-vate, base cuneate, margins entire or coarsely serrate above the middle, apex acute, glabrous; petiole to 1 cm long.

Flowering & Fruiting: July-March

B It is one of the traditional medicinal plants. It has been shown to possess antimicrobial, anti-oxidant, and insecticide properties.



Psidium guajava

Common names: Common guava, Adakkapazham
Family: Myrtaceae

Description: Small trees; stem smooth with peal-ing bark; young stem 4-angled. Leaves simple, op-posite, l6-11 x 2.5-5 cm, elliptic-oblong, apex acute-apiculate, base rounded to obtuse-cuneate, hir-sute on both sides when young, glabrous on ageing except the nerves, thin-coriaceous; lateral nerves prominent; petioles 0.6-1 cm long. Cymes axillary, 1-3-flowered; peduncles 0.5-1.2 cm long; pedicel short or 0. Calyx tube 4-9 mm long, ovoid, densely hirsute; lobes 4, unitedland closed in bud. Petals 4, white, 1-1.5 cm long, broadly ovate, cadu-cous. Stamens many. Ovary globose, many-celled; ov-ules numerous; style subulate. Berry 3-4 cm diam., globose crowned by persistent calyx lobes; seeds many, embedded in fleshy pulp.

Flowering & Fruiting: March-May

Uses: It is the most common and popular tradition-al remedy for gastrointestinal infections such as di-arrhea, dysentery, stomach aches, and indigestion and it is used across the world for these ail-ments.

Delonix regia

B Gul Mohur, Alasippoomaram
Family: Fabaceae

Description: Trees, to 15 m high; branchlets warty, puberulous. Leaves bi-pinnate, alternate; stipules small, lateral; rachis 15-20 cm long, slender, pulvinate, puberulent; pinnae 8-20 pairs, opposite or subopposite, 2.7-10 cm, slender, pulvinate, puberulent, a sessile gland seen between each pinnae on upper side; leaflets18-50,sessile, opposite; lamina 0.4-0.8 x 0.2-0.35 mm, oblong or linear-oblong, base oblique, apex obtuse, margin entire, puberulent above and pubescent beneath, membranous; nerves and nervules obscure. Flowers bisexual, crimson, in terminal or lateral corymbose panicles; calyx tube very short; lobes 5, valvate, subequal; petals 5, orbicular, imbricate; margins fimbriate; claws yellow, upper petal dissimilar and white streaked with red and yellow; stamens 10, free, dec-linate, long exserted; filaments villous below; anthers uniform; ovary half inferior, subsessile, ovules many; style filiform; stigma truncate, ciliolate. Fruit a pod, 40 x 6 cm, flat, elongate, woody; seeds many, oblong, transverse.

Flowering & Fruiting: February-July

Uses: The Delonix regia tree is endowed with numerous medicinal properties. It has antibacterial, anti-inflammatory, antifungal, antimicrobial, antioxidant, antimalarial, gastroprotective, and cardio-protective properties, as well as wound healing properties. The leaves of the Delonix regia tree are anti-diabetic.

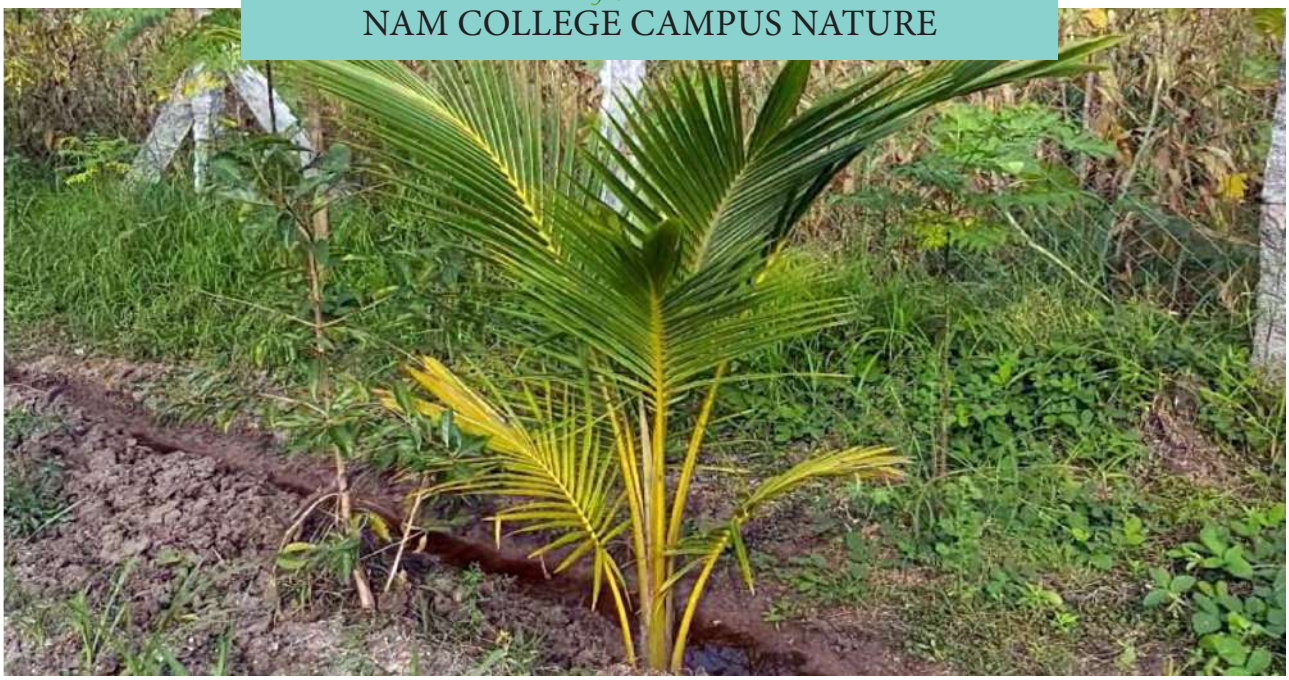
Anacardium occidentale

Common names: Cashew-nut tree, Kasumavu
Family: Anacardiaceae

Description: Gregarious evergreen trees, to 15 m high, bark pale grey to brown, smooth with verti-cal striations; blaze dull pink; exudation sticky, red; branchlets glabrous. Leaves simple, alternate, somewhat crowded on twig apices, 6-15.5 x 3-8 cm, obovate; apex obtuse, round or retuse, base acute or cuneate, round, margin entire, glabrous, shiny above, coriaceous; petiole 7-15 mm, stout, swollen at base, glabrous; lateral nerves 10-15 pairs, parallel, prominent, intercostae reticulate, prom-inent; glands axillary on main nerves and its branches. Flowers polygamous, yellow, streaked with pink, in terminal prominently bracteate panicles. Calyx 5-partite, lanceolate, imbricate, deciduous, with some pubescence on outside. Petals 5, linear-lanceolate, ligulate, recurved, imbricate; disc fill-ing the base of the calyx, erect. Stamens 8-10, one usually longer than others; filaments connate at the base and adnate to the disc, glandular puberulus. Ovary superior, obovoid or obcordate, 1-celled, ovule 1, ascending from a lateral funicle; style filiform, excentric; stigma minute. Fruit a reniform nut, 2-3 cm, grey, seated on a large pyriform fleshy body formed of enlarged disc and top of the pedicel; pericarp gives acrid caustic oil; seed reniform, ascending.

Flowering & Fruiting: November-April

Uses: Anacardium occidentale leaf extract is traditionally used in treating various diseases in tropi-cal America, especially in North-Eastern Brazil. The popular drinks in Brazil include fresh and processed cashew apple juice.



Cocus nucifera

Common names: Coconut, Thengu
Family: Arecaceae

Description: Erect trees with annular petiolar scars. Leaves pinnatisect, 4-6 m long; leaflets redu-pli-cate, 60-100 x 2.5-5 cm, base narrow, apex ta-pering, acute. Spadices interfoliar, 50-100 cm long, panicled; branches to 60 cm long. Spathe 60-130 cm long, oblong, woody. Flowers monoecious, sub-sessile. Male flowers: often paired, to 8 mm long. Sepals c. 3 mm long, ovate. Petals 6-8 mm long, ovate, woody, yellowish-brown. Stamens 6; pistil-lode short, 3-fid. Female flowers 1-3 per branch, basal, globose. Perianth-lobes 6; woody; outer lobes broadly obovate, c. 2 cm across; inner lobes reniform, to 2 cm across. Ovary 3-celled; ovule 1 per cell; style short. Drupe to 30 cm long, ovoid or globose, trigonous; pericarp fibrous; endocarp stony. Seed coherent with the endocarp.

Flowering & Fruiting: Throughout the year.

Uses: Industry is using the husk fiber from the pith as raw material for carpets, car seat stuffing, and in agricultural as fertilizers. The hard core is used to make handcrafts. The stalk and leaves of the coconut tree are useful in construction, and sugar, vinegar, and alcohol can be extracted from the in-florescence.

Samanea saman

Common names: Monkeypod, Urakamthoongimaram
Family: FABACEAE

Description: Trees, to 25 m high, bark yellowish-brown, rough, deeply fissured; branchlets pubes-cent. Leaves bipinnate, alternate, stipulate; stipules lateral, small, lanceolate, densely pubescent, cauducous; rachis 19-24 cm long, stout, pubescent, pulvinate, glands between pinnae pairs on the upper side; pinnae 6-7 pairs, 3-15 cm long, pulvinate, slender, grooved above, pubescent, 2-glands at the top of the pulvinous on the upper side and one between each pair of leaflets; leaflets 6-16, oppo-site, subsessile, estipellate; lamina 1.5-4.5 × 1-3 cm, oblong, rhomboid, trapezoid or ovate-oblong, base obliquely truncate, apex obtuse, mucronate, margin entire, glabrous above, pubescent and glaucous beneath, coriaceous; lateral nerves 4-11 pairs, pinnate, prominent, intercostae reticulate, prominent. Flowers bisexual, pinkish-white, subsessile, in dense heads; peduncle 6-10 cm long, pubescent, solitary or 2-3 together in the axils of upper leaves; calyx 3-5 mm long, funnel shaped, pilose, lobes 5, broadly triangular; corolla 8-13 mm long, pinkish, funnel shaped, puberulous, lobes 5, ovate, half as long as the tube; stamens many, 3 cm long, connate at the base ina tube one-third as long as the corolla tub, apex pink, base white; ovary superior, glabrous, sessile, stigma minute. Fruit a pod, 12-20×1-2.5 cm, indehiscent, slightly flattened and depressed between the seeds, sutures thickened; epicarp thin, crustaceous, glossy brown, mesocarp pulpy, light brown, sticky; endocarp firmly crus-taceous, forming continous septa between the seeds; seeds 16-20, 1×0.6 cm, smooth, brown, glossy.

Flowering & Fruiting: March-May

Uses: Due to its dense canopy, rain tree is planted in plantations as shade tree for coffee, cacao, and other crops. Medicinally, the plant is used in the treatment of diarrhea, stomach pain, and sore throat. It is also used as a laxative. The pods can be eaten and the pulp can be made into drink.

Tamarindus indica

Common names: v, Valampuli
Family: FABACEAE

Description: Trees, to 20 m high, bark brown to brownish-black, rough with vertical fissures; branch-lets warty, tomentose. Leaves paripinnate, alternate, leaflets 20-34, opposite, sessile, 1.5-4 x 0.4-1.3 cm, oblong, apex obtuse, base unequal, margin entire, glabrous, chartaceous; stipules lateral, minute, cauducous; rachis 8-13 cm long, slender, glabrous, pulvinate; lateral nerves 10-15 pairs, pin-nate, slen-der, obscure, looped at the margin forming intramar-ginal nerve; intercostae reticulate, ob-scure. Flow-ers bisexual, 1 cm across, yellow with reddish-pink dots, in lax terminal racemes; bracts and bracteoles ovate-oblong, coloured, cauducous; pedicels upto 5 mm. Calyx tube narrowly turbi-nate, lined by disc; lobes 4, subequal, oblong, imbricate. Petals 3, out-er one, 1 x 0.3 cm, rolled up, pink dotted, lateral 2, 1-1.5 x 0.7-1 cm, clawed, subequal, oblong-lance-olate, lower pair scaly. Sta-mens 9 monadelphous, only 3 fertile, others reduced to bristle, base pubes-cent; anthers versatile; ovary half inferior, stipitate, adnate to the disc, ovules many; style attenuate, tomentose; stigma glo-bose. Fruit a pod 10-15 x 1-2 cm, oblong, fruit wall crustaceous, mesocarp pulpy, endocarp septate, leathery, indehiscent; seeds 3-8 or more, obovoid-orbicular, compressed, brown.

Flowering & Fruiting: September-April

Uses: Tamarindus indica is one of the highly com-mercialized medicinal plants is known for its po-tent anti-inflammatory activities. 7, 8 This tropical tree has been used to treat inflammation, stomach pain, throat pain, and rheumatism in traditional medicine.

Peltophorum pterocarpum

Common names: Copper pod tree,Charakonna
Family: Fabaceae

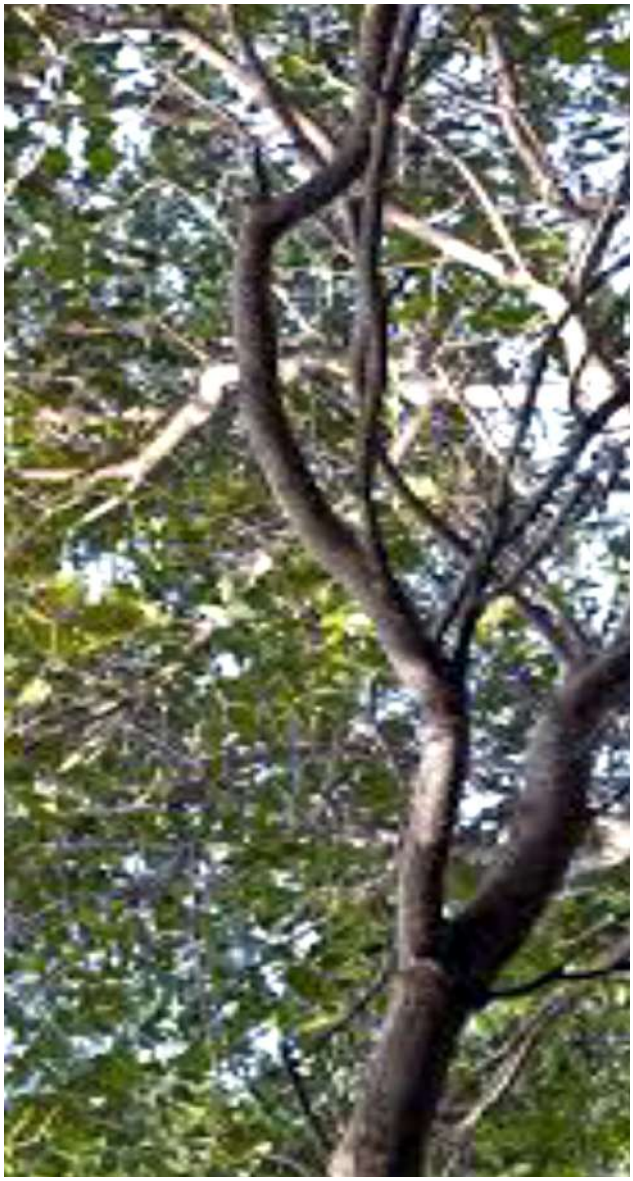
Description: Trees, to 20 m high, young parts brown tomentulose. Leaves bipinnate, alternate, stipu-late; stipules small, lateral, cauducous; rachis 21-40 cm long, stout, pulvinate, brown tomentu-lose; pinnae 10-12 pairs, opposite, 4-15 cm long, slender, pulvinate, brown pubescent; leaflets 14-38, op-posite, estipellate; lamina 1-2 x 0.3-0.8 cm, ses-sile, oblong, base obliquely truncate, apex obtuse or retuse, margin entire, glabrous above, puberu-lent beneath, membranous; lateral nerves 4-8 pairs, pin-nate, slender, prominent, intercostae reticulate, faint. Flowers bisexual, golden yellow, in terminal or lateral racemose panicles; pedicels 7-10 mm long; calyx lobes 5, ovate, 7-10 mm long minutely ru-fous tomentulose; petals 5, subequal, crinkled; stamens 10, filaments free, pilose at base; anthers uni-form; ovary half inferior; stigma peltate. Fruit a pod, 5-11.5 × 1.7-2.8 cm, samaroid, oblong-elliptic, minutely tomentulose, longitudinally striated; seeds 1-4, lenticular, light brown, compressed.

Flowering & Fruiting: Throughout the year

Uses: Peltophorum pterocarpum is used for fodder. The bark can also be used as dyes as it contains tannins, giving a light yellow colour to leather. Tan-nin is also present in leaves and wood.

Swietenia marcophylla

Common names: Mahogani, Manthagani
Family: MELIACEAE



Description: Deciduous trees, to 25 m high; bark brown. Leaves paripinnate, alternate, estipulate; rachis 5-13 cm long, slender, glabrous; leaflets 4-10, opposite or subopposite; petiolule 3-4 mm long, slender, grooved above, glabrous; lamina 5.5-12 x 2.5-4.5 cm, obliquely ovate-lanceolate, oblong-acuminate, oblong-lanceolate or falcate; base oblique, apex acuminate or caudate-acuminate, margin entire, glabrous, shining above, dull beneath, coriaceous; lateral nerves 7-12 pairs, pinnate, prominent, intercostae reticulate. Flowers bisexual, pale yellow, to 8 mm across, in axillary panicles to 10 cm; pedicel 2-4 mm; calyx lobes 5, lobes 0.5 mm, suborbicular; petals 5, to 4 mm, oblong; disc annular; staminal tube 3.5-4 mm, apically 10-lobed; stamens 10; ovary superior, 5-celled, ovules many; style to 1.5 mm long, attenuate; stigma some what lobed. Fruit a capsule, 8.5 x 6.5 cm, oblong-globose, 5-valved, woody, rusty out side; seeds many, to 6 cm, winged.

Flowering & Fruiting: April-March

Uses: The wood from Swietenia mahagoni, as well as the other two species of Swietenia, is used to make modern musical instruments because of its superior tonewood qualities. It is sometimes utilized in the top of guitars as well as the back, sides and neck, and is not uncommon in older mandolins.

Carica papaya

Common names: Papaya,Omakkay
Family : CARICACEAE

Description: Small herbaceous tree with white milky juice. Trunk with scars of fallen leaves. Leaf blade 30-60 cm long, deeply divided into several lobes which are again divided into smaller lobes with acute apex, petiole 40-100 cm long, 1-3 cm in diameter. Plants mostly dioecious rarely monoe-cious with fragrant and nocturnal flowers. Male inflorescence 30-100 cm long pendulous raceme. Flower in clusters, sessile. 1.5-2 cm across and 3-6 cm long, calyx small c. 2 mm long, 5-lobed, acute. Corolla tube 3-6 cm long, 5-lobed, twisted in bud, lobes c. 1 x 0.5 cm long, creamy yellow. Stamens 10, in two whorls, outer whorl of the stamens shortly stalked, filaments c. 1.5 mm long, papillose, inner most sessile, anthers 1.5-2 mm long 2-celled dehiscing longitudinally, basifixed. In female plant 2-4 floral bud arise in the leaf axil, one of which becomes a complete flower; other flo-ral buds fall off, sometimes one or two of them grow a little but never reach maturity, so flower seems to be solitary axillary. Peduncle short 1-2 cm long. Bracts fleshy, leaf, 1-2 cm long, caducous. Calyx united 5-lobed 5-8 mm long; acute, green and fleshy. Petals 5-6.5 x 1.6-1.8 cm, lanceolate, obtuse; stigma lobes fimbriate, c. 6 mm long: ovary 3.5-4 x 1.5-1.8 cm, some plants with female flower at the end of the branches of male inflorescence, producing elongated and smaller fruit. Fruit large spherical or pyriform usually 20-30 x 8-15 cm, turning yellow or orange with yellow or orange flesh. Seeds black, wrinkled, each enclosed in gelatinous membrane, oval in shape, c. 2 mm in diam-eter.

Flowering & Fruiting: Throughout the year

Uses: Fruit edible - raw or cooked. Male flowers - cooked and used as a green vegetable. The skin of the unripe fruit, the leaves, sap and seeds of the papaya are source of the enzyme papain, a diges-tive stimulant that facilitates the digestion of protein. Papain can be used internally, especially in the form of the extracted enzyme, to treat digestive disorders. The leaves and the fruit, especially the unripe fruit, are taken internally in the treatment of a range of digestive disorders, diarrhoea, high blood pressure and painful womb. Externally, the leaves are applied to wounds as a dressing that helps to speed the healing process. The seeds are used as a gentle purgative to rid the body of worms. The dried leaves can be beaten in water to form a soap substitute. Young leaves are used as mulch. Papain is added to cosmetic skin creams, termite control, used in clarifying beer, degumming natural silk etc.

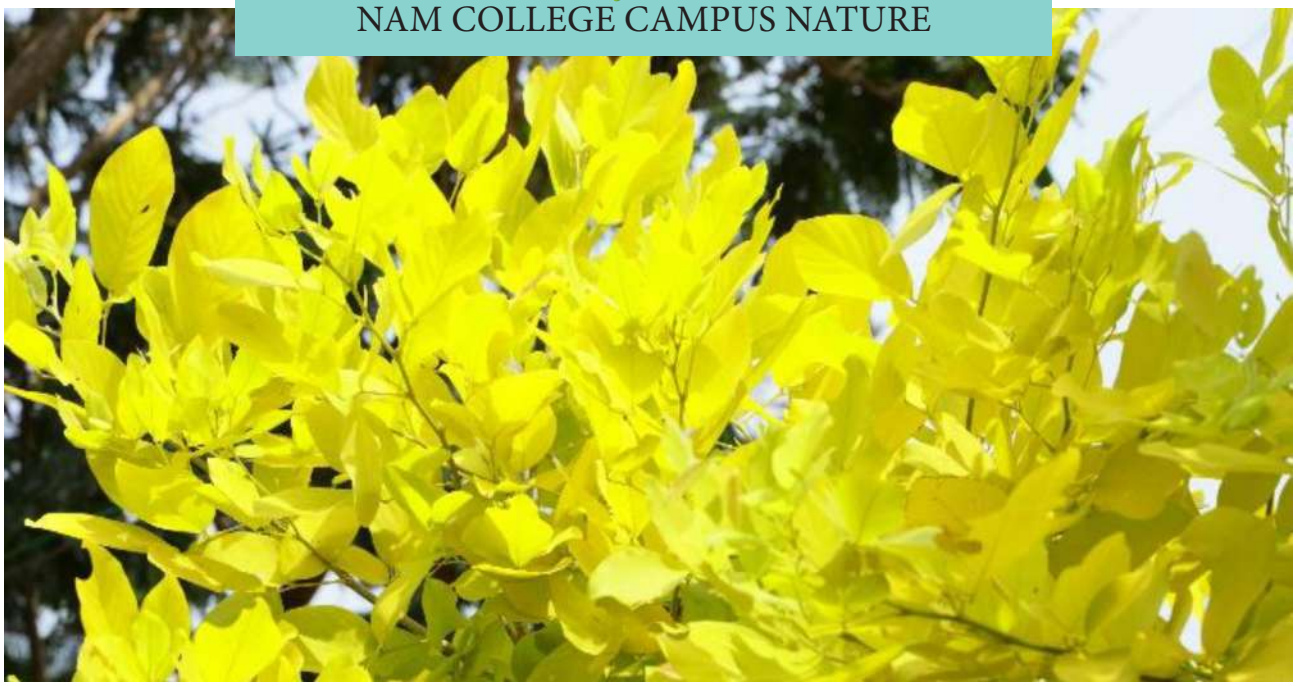
Cycus revoluta

Common names: King sago palm, Sago palm
Family: Cycadaceae

Description: Large shrub to small trees with terminal crown of large pinnately compound leaves; dioecious. Microsporophylls densely aggregated to form large terminal cones. Megasporophylls loosely arranged, crowded round the apex of stem; ovules 1-5 on either side of sporophyll. Seeds globose.

Flowering & Fruiting: December – February

Uses: Leaves are used for plaiting into mats. The mature male cones are used as insect repellents in the paddy fields. The pith is rich in carbohydrate and a sago can be made from it. The bark and the seeds are ground to a paste with oil and used as a poultice on sores, cuts, wounds, ulcers and swellings.



Desmodium oojeinense

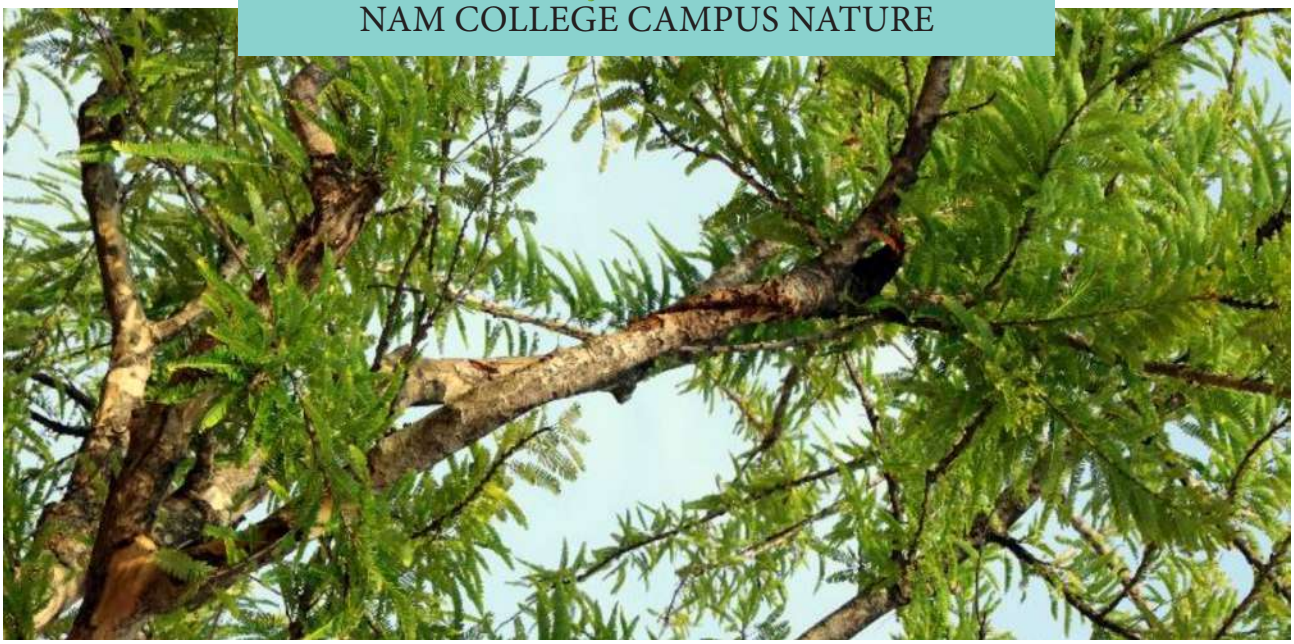
Common names: Chariot tree, Malavenga

Family: FABACEAE

Description: A small deciduous tree upto 12 m tall with grey or dark brown, deeply cracked bark. Leaves alternate, trifoliate, to 30 cm long(including the petiole); petioles 3.8-5 cm long; stipules 6 mm long, lanceolate, acute; leaflets broadly ovate, 7.5-15 cm long and 3.8-10 cm wide, coriaceous, glabrous above, sparsely pubescent beneath, base cordate, margins shallowly crenate, main nerves 4-8 pairs, petiolules 3 mm long. Flowers white or pink, somewhat fragrant, borne in short-fascicled racemes arising from the nodes of old branches; pedicels 1.2-2 cm long, filiform; bracts c.1.3 mm long, ovate, acuminate; bracteole 1 beneath the calyx, minute; calyx 4-6 mm long, pubescent, teeth short, triangular; corolla 1-1.3 cm long. Fruits(pods) linear-oblong, 5-7.5 cm long, light brown, flat, joints 2-3 times as long as broad, reticulately veined; seeds 2-5.

Flowering & Fruiting: January-April

Uses: Juice of the root, mixed with the powder of two fruits of black pepper is taken in cases of eye trouble



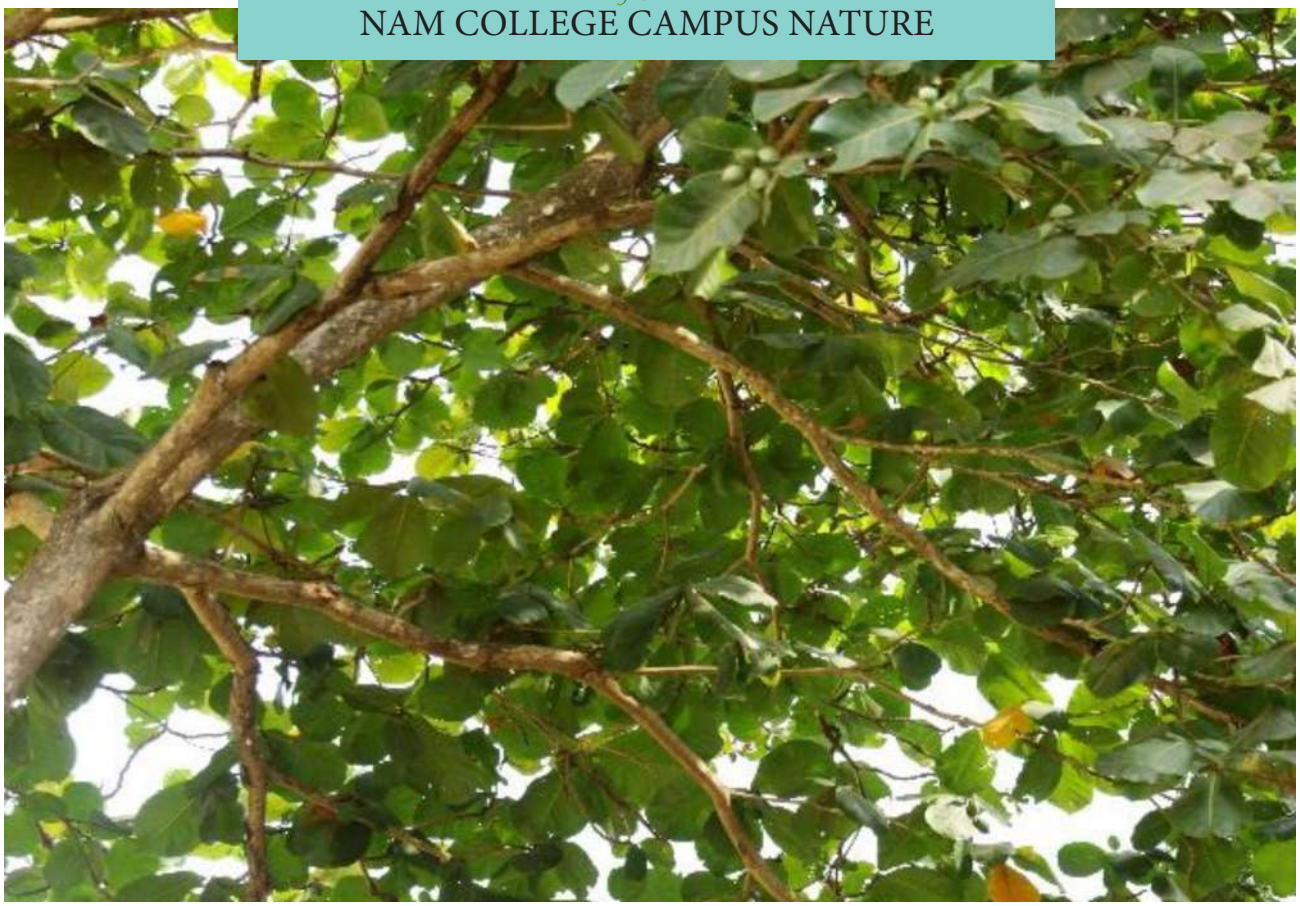
Phyllanthus emblica

Common names: Indian Gooseberry, Amla, Nelli
Family: Phyllanthaceae

Description: Deciduous trees, bark grey-brown, rough. Leaves simple, alternate, oblong or linear-oblong. Flowers unisexual, greenish-yellow, densely clustered in leaf axils. Male flowers: tepals 6, oblanceolate, stamens 3, anthers oblong. Female flowers: tepals 6, oblanceolate, obtuse; ovary supe-rior, 3-celled; ovules 2 in each cell; styles 3, recurved, stigmatiferous. Fruit a capsule, subglobose, dehiscing into 6 cocci, disc enlarged to give an appearance of fleshy yellowish-green, indehiscent berry.

Flowering & Fruiting: July – February

Uses: The fruit is an extremely rich source of ascorbic acid. The fruits have diuretic, laxative and purgative activities and also show molluscicidal and antimicrobial properties. A principal ingredient of various Ayurvedic tonic formulas. The fruit is given in order to allay the effects of aging and to restore the organs. The sour fruits are one of the ingredients of 'triphala', an Ayurvedic rejuvenating, laxative tonic based on this species plus the fruits of Terminalia bellirica and Terminalia chebula. The juice of the fruit is also given in order to strengthen the pancreas of diabetics, as well as in the treatment of eye problems, joint pain, diarrhoea and dysentery.



Terminalia catappa

Common names: Badham, Indian almond tree, Java almond

Family: Combretaceae

Description: Terminalia catappa are trees often buttressed; bark brownish to grey. Leaves simple, alternate, densely clustered at the tip of branch-lets; lamina obovate, margin entire. Flowers po-lyga-mous, white or yellowish-green, in axillary simple; calyx tube, pubescent, expanded portion cupular, teeth 5, triangular or ovate; petals absent; stamens 10; anthers oblong; ovary inferior, 1-celled, ovule pendulous. Fruits a drupe, broadly ellipsoid to ovoid, laterally compressed, inflated, brown or red-dish-brown, glabrous, glossy.

Flowering & Fruiting: March – January

Uses: Nut edible, ayurvedic. The fruit is helpful in the treatment of Leprosy, headache and reduces nausea. It cures sexual dysfunction particularly in men like premature ejaculation and hypersexuality

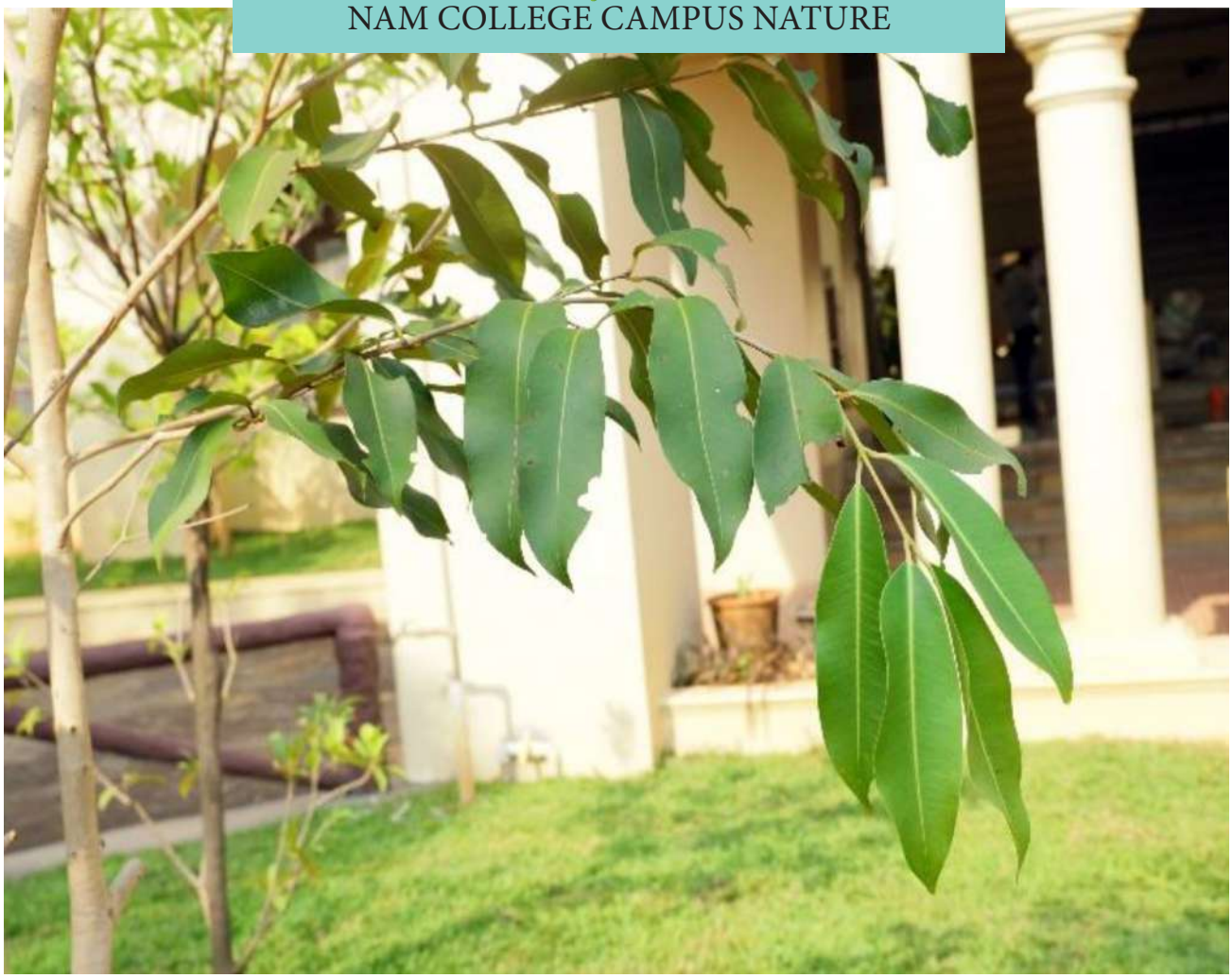
Manilkara zapota

Common names: Naseberry, Sappota
Family: SAPOTACEAE

Description: Trees, to 15 m high, young parts covered with brown hairs; exudation milky white la-tex. Leaves simple, alternate, spiral, clustered towards the apex of branchlets; petiole 10-30 mm long, stout, glabrous; lamina 7-15.5 ×2.5-4.5 cm, elliptic, elliptic-obovate or elliptic-oblanceolate, base acute or attenuate, apex slightly acuminate with retuse tip, margin entire, glabrous, coriaceous; lateral nerves many parallel, slender, faint, intercostae reticulate, obscure. Flowers bisexual, white, solitary or in pairs from the axils of upper leaves; pedicels 0.8-2 cm long, scurfy; sepals 6, 3+3; 6.5-10 mm long; corolla 0.7-1.1 cm long, campanulate, greenish-white or cream; lobes 6, irregularly 2-3 toothed; stamens 6, inserted at the top of the corolla tube; filaments free or partly fused with the staminodes; anthers extrorse; staminodes 6, alternating with the stamens, bifid, laciniate, irregularly divided; disc annular, tomentose; ovary superior, hairy, many celled, ovules many; style terminal. Fruit a berry, 3.5-8 × 3-6 cm, ovoid or ellipsoid, scaly; seeds 1.5-2.5 cm long, many, black.

Flowering & Fruiting: February-June

Uses: Its parts are used in alternative medicine to treat coughs and colds and possess diuretic, anti-diarrheal, antibiotic, antihyperglycemic, and hypocholesterolemic effects.



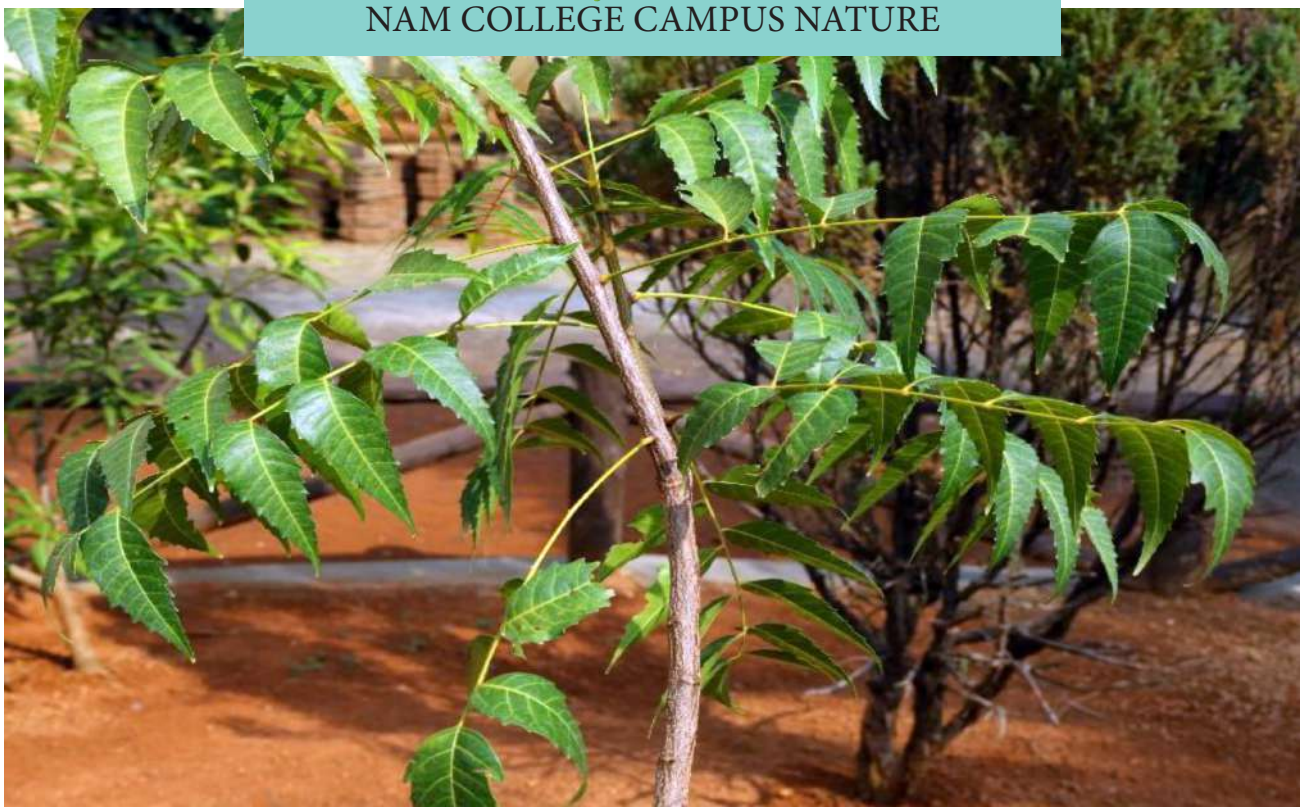
Syzgium cumini

Common names: Java plum, Njaval
Family: Myrataceae

Description: Black plums are medium sized trees; bark white, light pink inside. Leaves ovate, ob-long, long-acuminate at apex, acute at base; nerves many, close, shining above. Panicles to 10 cm across, on leafless branchlets. Flowers, subsessile; calyx tube, turbinate. Fruit is a Berry, obovoid, deep blue.

Flowering & Fruiting: December – April

Uses: Fruits edible, timber yielding. The seeds and bark are well known for the treatment of dysen-tery and in the control of hyperglycaemia and glycosuria in diabetic patients. A coffee-like beverage is made from the dried and ground up seeds.



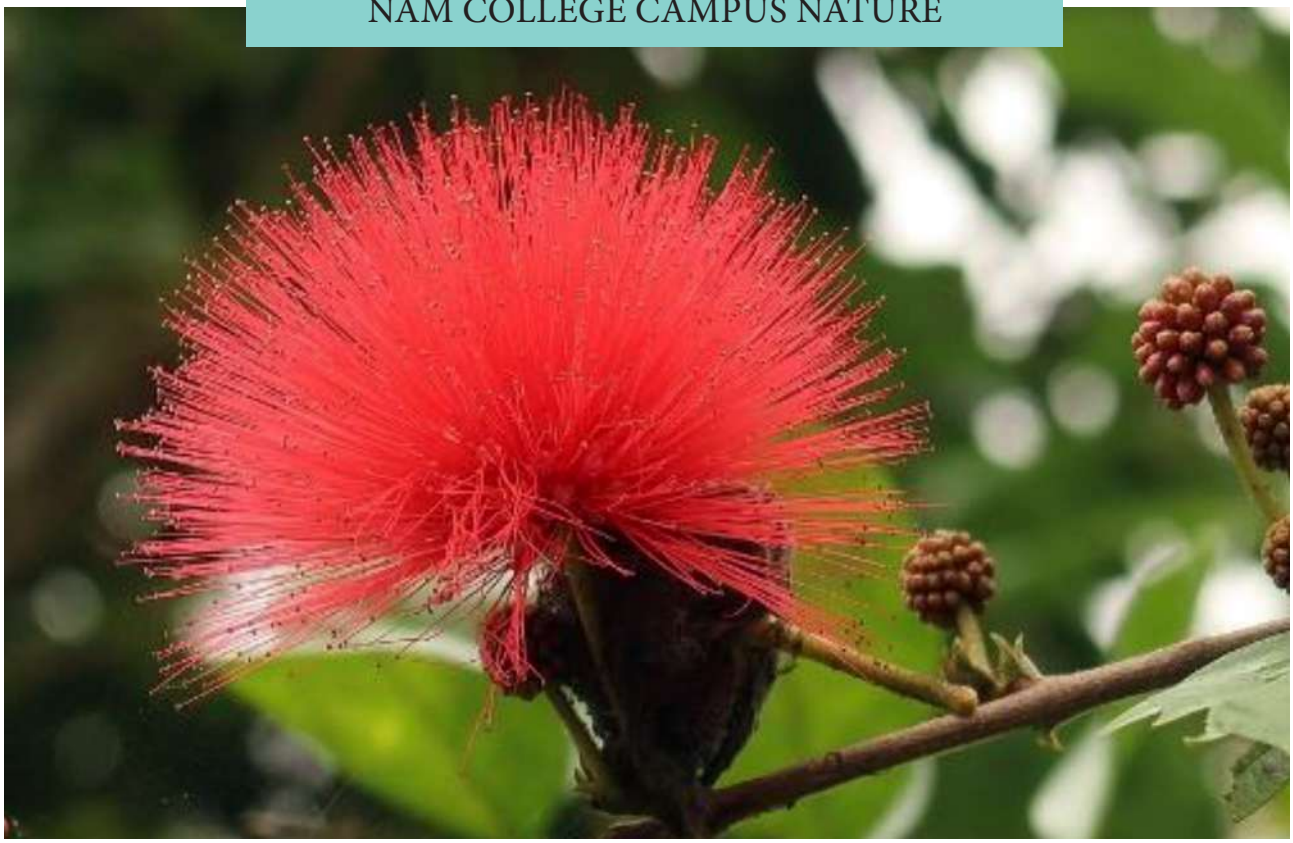
Azadirachta indica

Common names: Neem, Aryaveepu
Family: Meliaceae

Description: Neem, an evergreen tree with bark greyish-brown having verticale striations. Leaves imparipinnate, alternate, rachis slender and swollen at base. Leaflets are opposite; with lanceolate or falcate lamina, and serrated margin. Flowers are bisexual, white, in axillary panicles; sepals 5, ovate, margin ciliate; petals 5, free, white, oblong-obovate, pubescent, and imbricate. Staminal tube gla-brous; anthers 10; ovary superior, style slender, stigma terete, 3-lobed. Fruit is a drupe.

Flowering & Fruiting: February – September

Uses: Fruits edible, Ayurvedic, firewood, drought tolerant, young leaves edible, antihelminthic. Avery bitter flavour, they are often eaten as a pre-meal appetizer. Among its many benefits, the one that is most unusual and immediately practical is the control of farm and household pests. Some en-tomologists now conclude that neem has such remarkable powers for controlling insects that it will usher in a new era in safe, natural pesticides



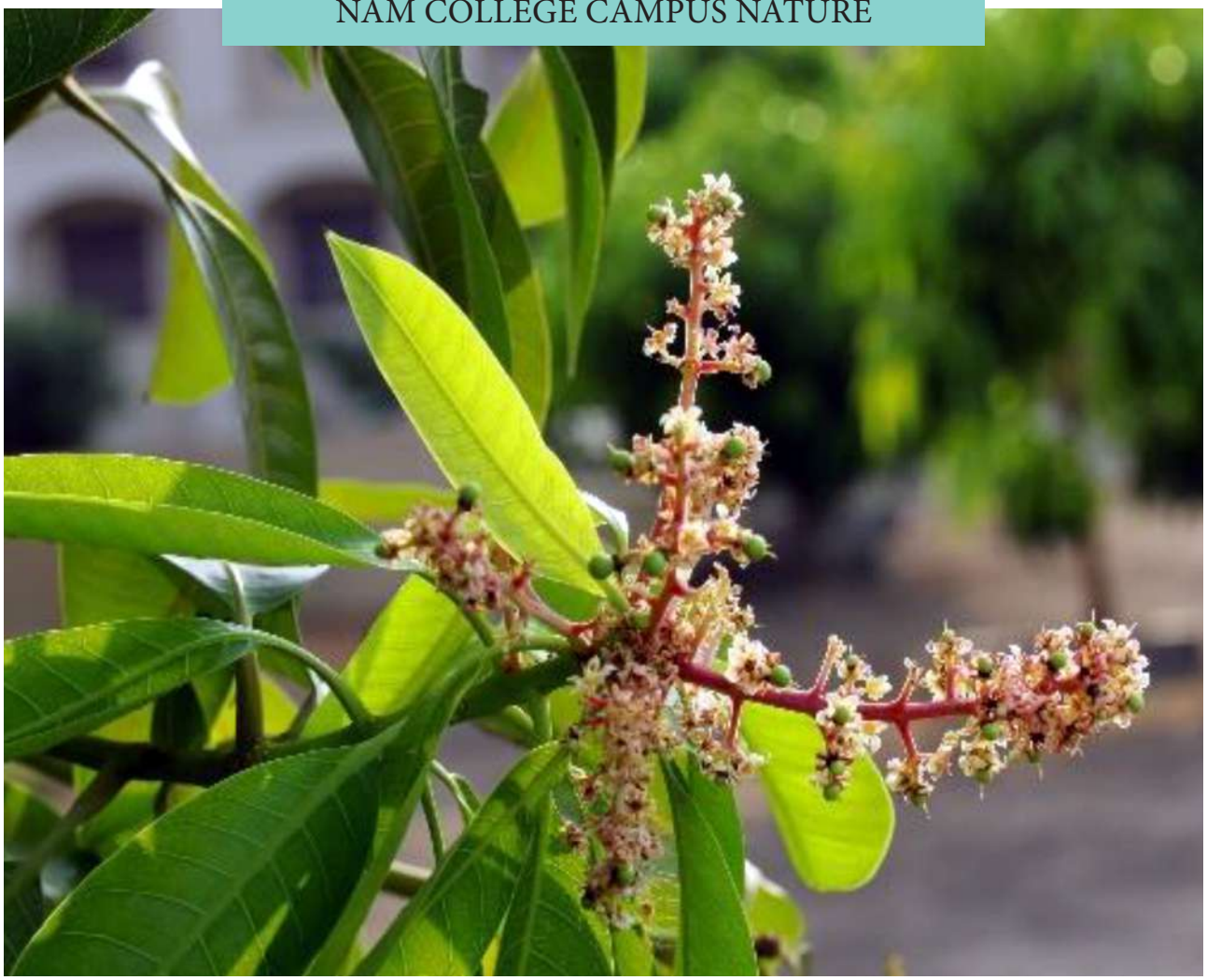
Calliandra haematocephala

Common names: Red Powder Puff,
Family: Fabaceae

Description: Large shrubs to small trees with spreading branches. Leaves alternate with 1 pair pinnae; leaflets 7-10 pairs, 1.5-5 x 0.5-1.8 cm, elliptic to oblong-lanceolate or subfalcate apex obtuse and mucronulate, base obliquely rounded to subcordate; petiole 1-2.5 cm; stipules 6.5-10 mm. Flowers in globose heads, peduncle 1-3.5 cm. Calyx white to pink, 1.5-2 mm, striate. Corolla pink with green or white lobes, tube 3.5-5 mm; lobes 3 mm. Stamens bright red, filaments 3 cm long. Pods linear-lanceolate 9-10 x 1.5 cm; seeds 5 or 6, oblong, flattened 0.8-1.2 x 0.4-0.6 cm.

Flowering & Fruiting: Throughout the year

Uses: Calliandra haematocephala is an excellent permaculture plant. It helps in relief from haemorrhoids, the prevention of infection, reduced inflammation, and the elimination of seizures., modulation of the immune system for ulcer prevention. The flower's decoction serves as a tonic and blood purifier



Mangifera indica

Common names: Mango tree, Maavu
Family: Anacardiaceae

Description: Mango trees are evergreen trees with bark dark grey. Leaves simple, alternate, clus-tered at the tips of branchlets, linear-oblong, margin en-tire. Flowers polygamous, yellowish-green, in ter-minal panicles. Calyx 4-5, ovate, imbricate. Petals 4-5, oblong. Stamens 4-5. Ovary sessile, supe-rior, ovule pendulous. Fruit a drupe, yellowish-red, me-socarp fleshy, endocarp fibrous.

Flowering & Fruiting: January – May

Uses: Fruits edible, young leaves edible, essen-tial oil yielding, timber yielding. The leaves are astrin-gent and odontalgic. An infusion is drunk to reduce blood pressure and as a treatment for con-ditions such as angina, asthma

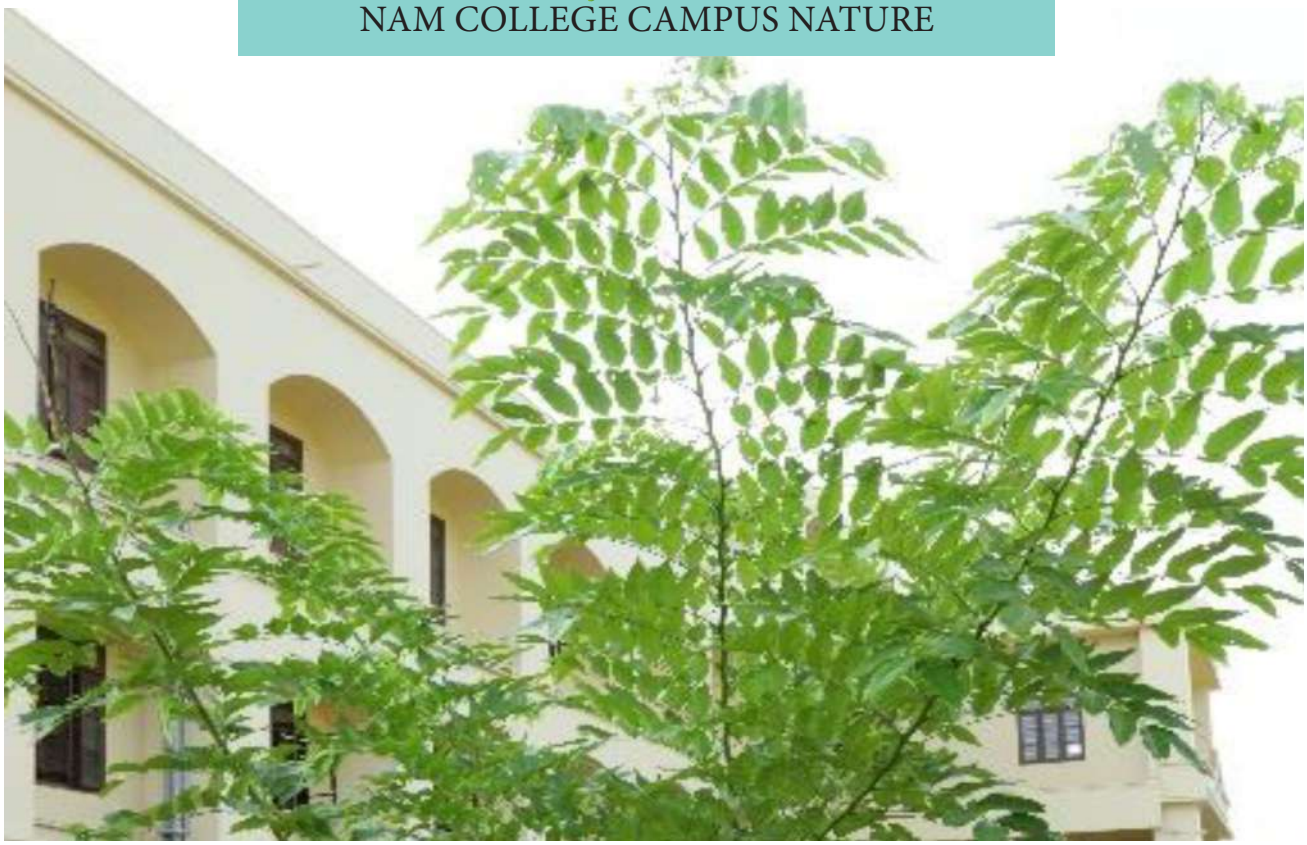
Pterocarpus marsupium

Common names: Indian kino tree, Venga
Family: FABACEAE

Description: Deciduous trees, to 30 m high, bark 10-15 mm, surface grey or greyish-black, rough, deeply vertically cracked, exfoliations small, irregular, fibrous; exudation blood-red. Leaves impari-pinnate, alternate, leaflets 5-7, alternate, estipulate, 3.5-12.5 x 2-7 cm, elliptic-oblong, oblong-ovate or oblong, apex obtuse and emarginate, base obtuse or acute,margin entire, glabrous, coriaceous; stipules small, lateral, cauducous; rachis 6.5-11.1 cm long, slender, pulvinate, glabrous; petiolule 6-10 mm, slender, glabrous; lateral nerves 9-20 pairs, parallel, prominent, ascending, secondary laterals prominent; intercostae reticulate, prominent. Flowers bisexual, yellow, in terminal and axillary pani-cles; 10-12 mm long; bracts small, dioecious; bracteoles 2, cauducous. Calyx tube campanulate, lobes short, the upper 2 often connate; corolla exserted. Petals 5, all long-clawed, crisped along the margins; standard orbicular, wings oblique, obovate, auricled; keel petals oblique, small, slightly connate. Stamens 10, monadelphous; filaments subequal; anthers uniform. Ovary shortly stalked, inferior, tomentose, 1-celled, ovules 2; style filiform, in curved, beardless; stigma capitate. Fruit a pod, 2.5-5 cm across, orbicular-reniform, broadly winged; seed one, subreniform.

Flowering & Fruiting: September-October

Uses: Kino gum, obtained from incisions in bark, has astringent, anti-diarrhoeal, and anti-haemorrhagic properties. Leaves are used externally to treat boils, sores, and other skin diseases, while flowers are febrifuge.



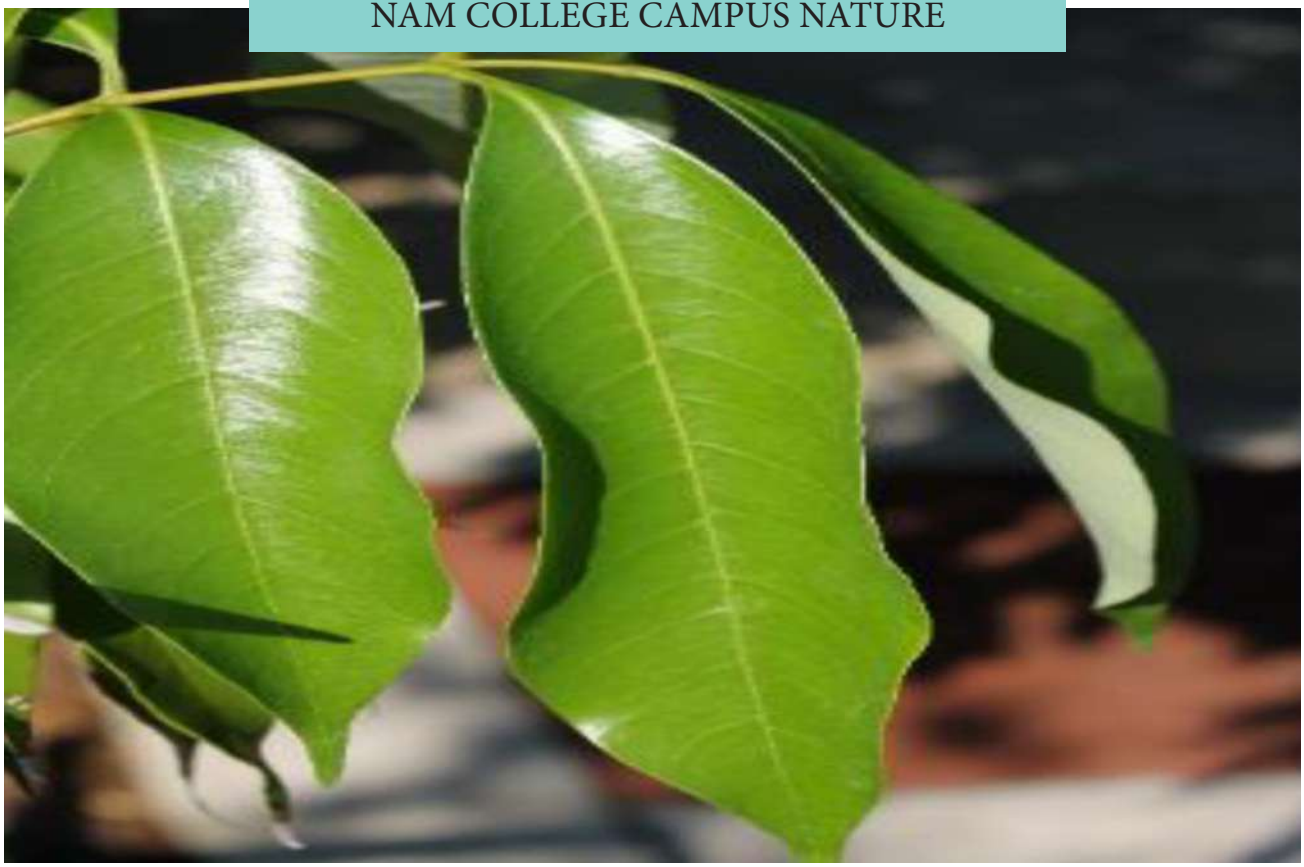
Cassia fistula

Common names: Golden Shower, Kannikonna
Family: Fabaceae

Description: Cassia fistula is an deciduous trees with surface pale when young, dark grey when old, smooth, exfoliating in hard scales. Leaves paripinnate, alternate, leaflets opposite, ovate, margin entire, pulvinate. Flowers bisexual, yellow, in axillary drooping racemes. Calyx tube short, lobes 5, ovate. Petals 5, obovate. Stamens 10, all fertile; upper 3 short with erect filaments; anthers basifixed; lower 3 large with curved filaments, anthers dorsifixed. Ovary half inferior, ovules many; stigma punctiform. Fruit a pod.

Flowering & Fruiting: February – September

Uses: The sweet blackish pulp of the seedpod is used as a mild laxative. Used for road-side plan-ta-tions because of its excellent yellow shower flower. Wood is used for agricultural implements. The bark is used for tanning and dyeing. The pulp of the fruit furnishes an excellent and safe purgative, useful in chest and heart diseases



Litchi chinensis

Common names: Lychee, Litchi
Family: SAPINDACEAE

Description: Medium sized tree, 15 m high; branching nearly from base; bark grey, nearly smooth; branchlets lenticellate. Leaves alternate, pinnate, rachis 5-15 cm long; leaflets 7-15 x 2.5-4 cm, ob-long-lanceolate, elliptic-oblong, acute to acuminate, base obtuse, cuneate, glabrous and shining above and glaucous beneath. Panicles terminal, up to 50 cm long. Flowers 0.3-0.5 cm across. Petals absent. Stamens 6-8, exserted; filaments slender. Drupe fleshy with a brown muricated rind turning red; seeds shining brown

Flowering & Fruiting: January-May

Uses: Whole litchi fruits have been used not only as a food source but also for medicinal purposes. As a traditional Chinese medicine, litchi has been used for centuries to treat stomach ulcers, diabe-tes, cough, diarrhea, and dyspepsia, as well as to kill intestinal worms.

Garcinia mangostana

Common names: Mangosteen, Mangosta
Family: CLUSIACEAE

Description: Evergreen trees, to 20 m high, bark black or dark brown, smooth; exudation yellow, sticky; branchlets decussate, stout, cylindric, slightly grooved, glabrous. Leaves simple, opposite, decussate, estipulate; petiole 20-25 mm long, stout, glabrous, slightly grooved above, ligulate projec-tions at base prominent, clasping the branches; lamina 8-25 x 4-12 cm, elliptic to elliptic-oblong or ovate-oblong, base acute, obtuse or rotund, apex acute or shortly acuminate, margin entire, often slightly revolute, glabrous, thickly coriaceous, glossy; lateral nerves numerous, parallel, close, slen-der, prominent, looped near the margin forming intramarginal nerve, intercostae reticulate, obscure. Flowers polygamodioecious; male flowers : pale green, to 4 cm across, 3-9 in terminal fascicles; ped-icels 1.5-2 cm long; bracts orbicular, concave, scarious; sepals 4, erect, unequal, coriaceous, concave; petals 4, larger than sepals, ovate, fleshy, yellow-red inside, green red outside; stamens numerous, inserted on 4 thick, receptacular lobes below the rudimentary pistil; filaments short; anthers ovate-oblong, recurved; rudimentary pistil discoid, fleshy, red, apex conical, as long as stamens; bisexual flowers: 1-2 at the apices of branchlets, purple; pedicel 1.8-2 cm long, stout, woody; sepals 4, rarely 5, decussate, orbicular, concave, thick, persistent, outer pair shorter than inner; petals 4, purple, upto 3 cm long, orbicular, concave, thick, fleshy; stamens many, 1-2 seriate; filaments 4-5 mm long, slen-der, connate at base; anthers ovate-oblong, apex recurved; ovary superior, globose, smooth, 5-8-locular; ovules solitary, ascending; stigmas sessile, punctate, 5-8 lobed, lobes cuneiform. Fruit a ber-ry; 5-7 cm across, glossy purplish-black, smooth, surrounded at base by sepals, apex crowned by 5-8 lobed stigma; pericarp thick, spongy, reddish, with yellow latex; seeds upto 8, oblong, 1-2 cm long, laterally compressed; aril opaque, very pleasant, juicy, thick, white.

Flowering & Fruiting: Throughout the year

Uses: The fruit of Garcinia mangostana (family Guttiferae), commonly known as a mangosteen, is an important fruit in the various traditional and folk systems of medicine in Southeast Asia, being used to treat dysentery, urinary disorders, cystitis, gonorrhea, inflammatory skin disorders, and wounds

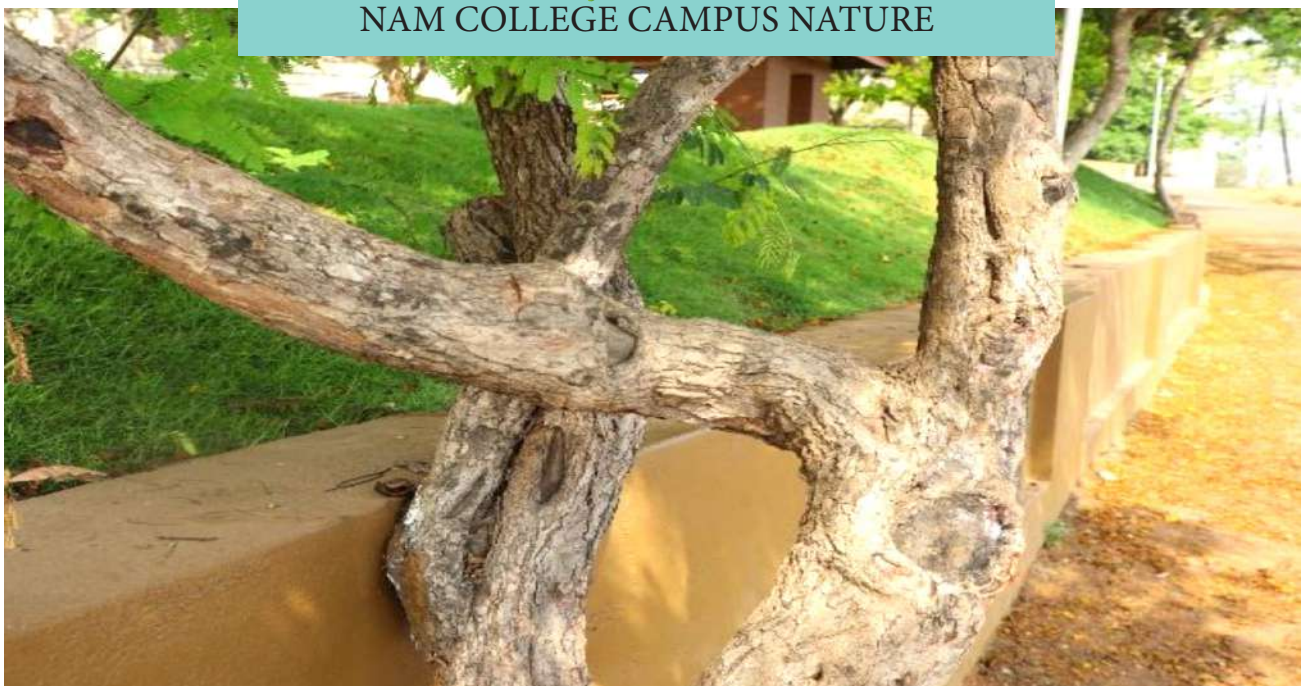
Syzygium jambos

Common names: Malabar Plum, Champakka
Family: MYRTACEAE

Description: Trees, to 15 m high, branchlets terete, glabrous. Leaves simple, opposite, decussate, estipulate; petiole 7-10 mm long, slender, glabrous, grooved above; lamina 10-18 x 2.5-5.5 cm, ellip-tic, elliptic-oblong or elliptic-lanceolate, base acute, obtuse or cuneate, apex acute or acuminate, margin entire, glabrous, coriaceous; lateral nerves 10-16 pairs, pinnate, prominent, arched towards the margin forming intra marginal nerves, intercostae reticulate, prominent. Flowers bisexual, white, to 6 cm across in terminal cymes to 10 cm; pedicel to 2 cm; calyx tube 1.5 cm, turbinate; lobes 4, 8 x 6 mm, ovate-orbicular, subequal, persistent; petals 4, 1.5 x 1.8 cm, free, concave, spreading, orbicu-lar; disc thick, lining the calyx; stamens many; filaments exserted, basally subconnate, unequal; ova-ry inferior, to 8 mm long, 2-celled, ovules many; style filiform, subulate. Fruit a berry, 3 x 2.5 cm, white or pink, fleshy, oblong; seeds brown.

Flowering & Fruiting: October-January

Uses: The seeds have an anesthetic property whereas leaf decoction is applied to sore eyes, and used as diuretic, expectorant and to treat rheumatism. The decoction of the bark is administered to treat asthma, bronchitis, and hoarseness



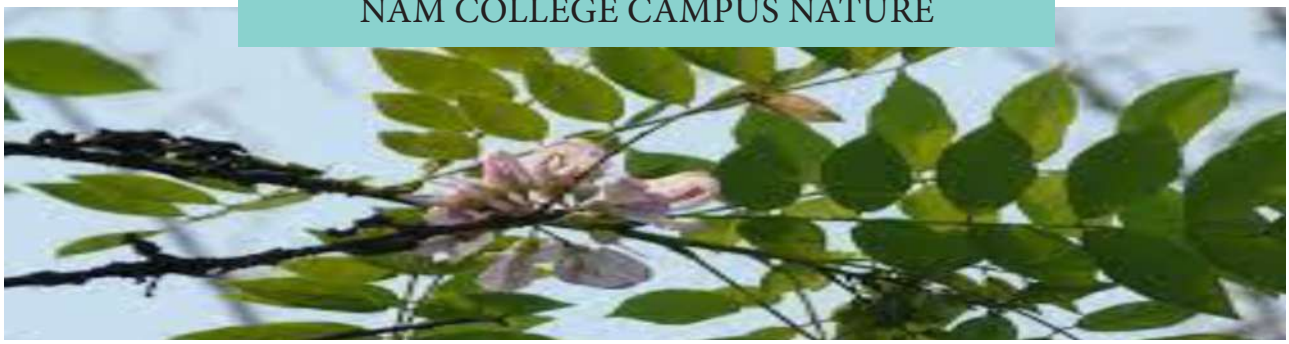
Libidibia coriaria

Common names: divi -divi ,
Family: FABACEAE

Description: Trees, to 15 m high; branchlets warty. Leaves bipinnate, alternate; stipules minute; rachis 5.5-9.5 cm, slender, pulvinate, pubescent; pinnae 8-16 pairs, subopposite, 3-6 cm long, slender, pubescent; leaflets 24-44, sessile, opposite or subopposite; lamina 0.8-1 x 0.2-0.4 cm, oblong, base oblique, cordate, apex obtuse or emarginate, margin entire, glabrous, punctate, membranous; lateral nerves obscure. Flowers bisexual, creamy, 8 mm across, in axillary and terminal panicles to 6 cm long; pedicel to 1.5 mm; calyx tube campanulate, short; petals 5, ovate-orbicular, clawed subequal; stamens 10, declinate; filaments subequal, 3.5-4 mm, basally villous; ovary half inferior, stipitate, 3 mm long, glabrous; style suberect, to 4 mm long; stigma capitate. Fruit a pod, 3 x 2 cm; twisted; seeds 6 x 4.5 mm, oblong, flattened.

Flowering & Fruiting: September-March

Uses: The pods provide tannin and a black dye used in the tanning industry and for ink. The pods also have medicinal properties. The hard, dark colored wood is used for carpentry. The tree can be planted for shade. Yields of pods may be 45–135 kg per tree per year.



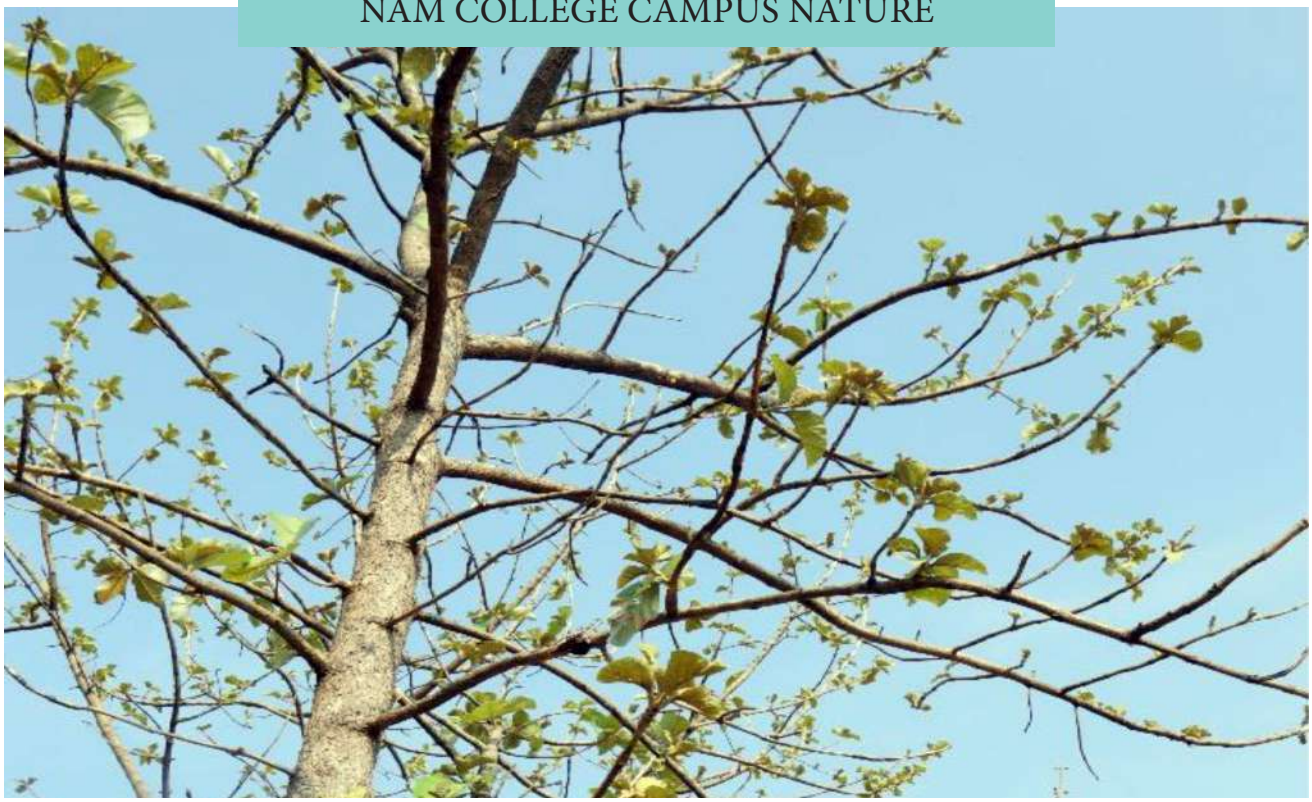
Gliricidia sepium

Common names: Spotted Gliricidia, Cheema konna
Family: FABACEAE

Description: Trees to 8 m high; bark grey, lenticellate; branchlets glandular-pubescent. Leaves odd-pinnate, alternate, spiral; stipules lateral, cauducous; rachis 8-30 cm, slender, pulvinate, pubescent; leaflets 7-21, opposite, estipellate; petiolule 4-7 mm, slender, pubescent; lamina 2.5-8 x 1.5-5 cm, ovate, ovate-oblong, elliptic-ovate or elliptic-oblong, base obtuse or oblique, apex acuminate or ob-tuse, margin entire, glabrous above, glaucous and puberulent beneath, membranous; lateral nerves 5-10 pairs, pinnate, slender, prominent, intercostae reticulate, prominent. Flowers bisexual, 2 cm across, rose-pink, to 20 cm long racemes; pedicels to 2 cm; calyx campanulate, to 5 mm; lobes ob-scure; petals exserted; standard 2 x1.5 cm, orbicular, with 2 callosities above claw; wings to 2 x0.6 cm, oblong, auricled; keels 2.2 x 0.8 cm, obovate, incurved; stamens 9+1; staminal tube 1.6 cm; vex-illary stamen free; filaments unequal, 3-4 mm; anthers uniform; ovary half inferior, sessile, 1.5 cm; style incurved, 4 mm, glabrous; stigma capitate. Fruit a pod, to 15 cm long.

Flowering & Fruiting: March-May

Uses: Gliricidia sepium is the topic of much research due to its numerous traditional applications, which include treating coughs, asthma, curing urticaria, rash, burns, scabies, dermatitis, acting as an antipruritic on the skin, and treating bacterial and protozoal infections. It is used as a shade for tea, coffee and cacao; and as a support for cassava, yams, vanilla, pepper, and passionfruit. These crops also benefit from the soil improvement characteristic of gliricidia.



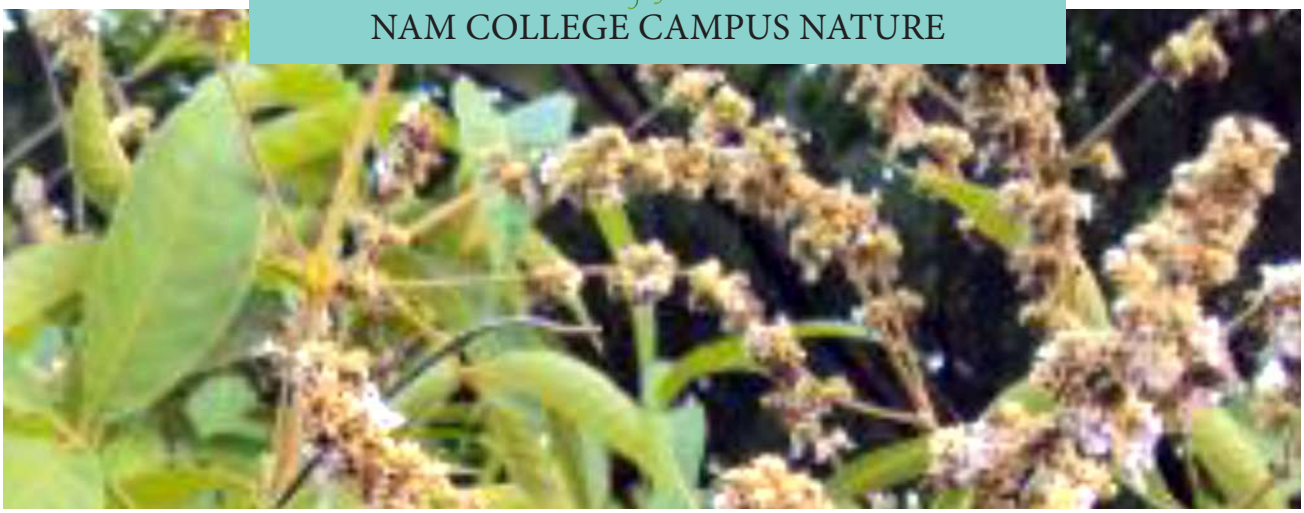
Tectona grandis

Common names: Teak, Indian Oak, Thekku
Family: Lamiaceae

Description: Teaks are deciduous trees, bark yellowish-brown, rough. Leaves simple, opposite, ovate, margin entire. Flowers bisexual, white, in terminal cymose panicles. Calyx, campanulate, lobes 5-6, subequal, ovate, tomentose. Corolla, lobes 5-6, oblong, spreading. Stamens 5-6, equal, erect, inserted at the throat, exserted; anthers oblong. Ovary globose, superior, densely hairy, 4-celled, 1 ovule in each cell. Fruit a drupe.

Flowering & Fruiting: May – January

Uses: Timber yielding. A wood tar paste is made from the powdered wood by putting it into hot water. It is vermifuge; promotes digestion; is effective in relieving bilious headaches and tooth aches; reduces inflammations or eruptions of the skin. The bark has been used as an astringent and in the treatment of bronchitis. The flowers are diuretic. They are used to treat biliousness, bronchitis and urinary disorders. Oil extracted from the seeds promotes hair growth.



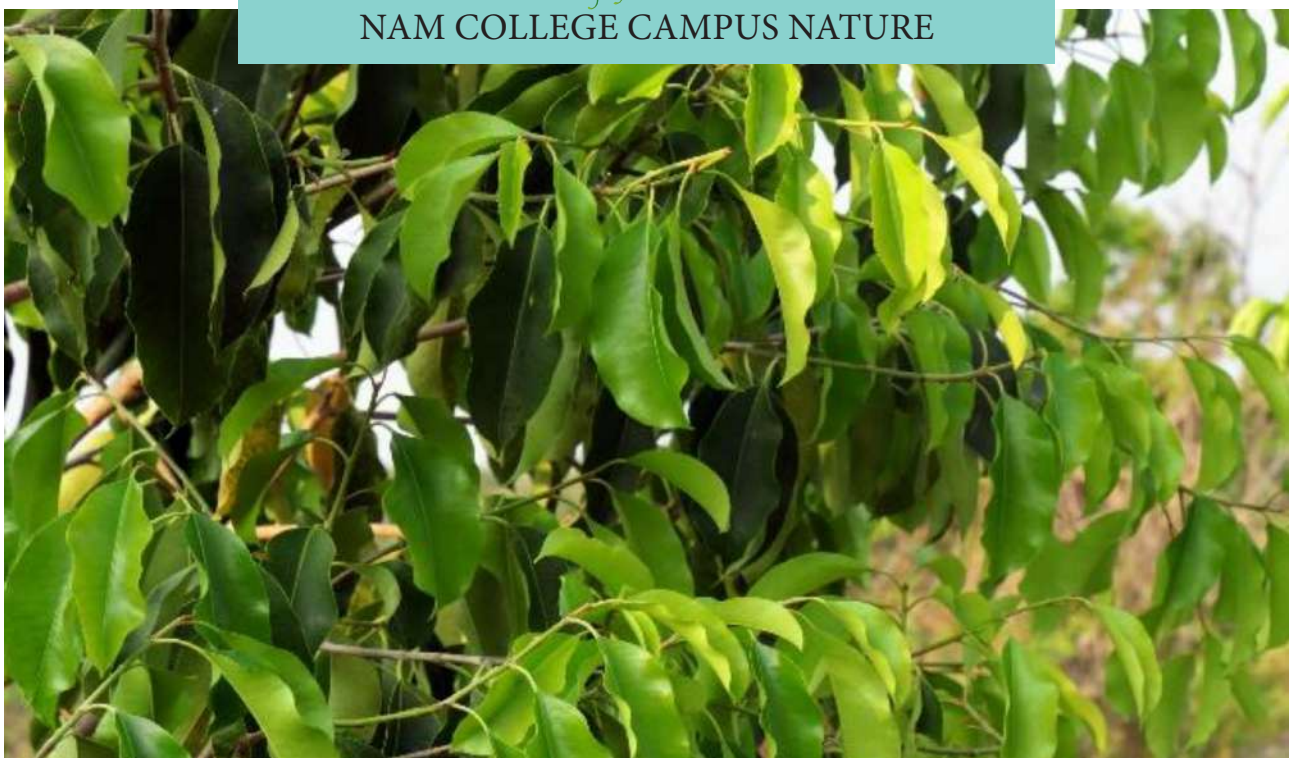
Vitex altissima

Common names: Peacock chaste tree, Myila
Family: VERBENACEAE

Description: Trees, to 30 m high, bark 10-13 mm thick, greyish-yellow, scaly; branchlets lenticellate, minutely tomentose. Leaves compound, opposite, leaflets 3-5, sessile, 6-18 x 2-5 cm, lanceolate, el-liptic-lanceolate, or oblanceolate, apex acuminate, base cuneate or acute, margin entire, glabrous above and pubescent or glabrescent along the nerves below, chartaceous; rachis 3.5-6 cm long, slen-der, pubescent, winged in sapling leaves, wings auriculate at base; lateral nerves 10-16 pairs, pinnate, puberulent beneath, slender, prominent; intercostae reticulate, prominent. Flowers bisexual, white, tinged with blue, in terminal panicles; bracts lanceolate, 3 mm long, cauducous; Calyx densely to-mentose, shortly 5 lobed, ovate. Corolla 5 mm long, 2 lipped, upper lip of 2 and lower lip of 3 lobes, obtuse, throat villous. Stamens 4, didynamous, exserted; filaments hairy at base. Ovary globose, 1 mm, superior, densely hairy, 2-4-celled, 4 ovuled; style filiform; stigmas bifid. Fruit a drupe, 5 x 5 mm, smooth, globose, glabrous, blue, supported by enlarged calyx; seeds 4, obovate.

Flowering & Fruiting: March-July

Uses: Vitex species are well known in pharmacology to have medicinal values, such as anti-inflammatory, antibacterial, antifungal, antimicrobial, antioxidant, and anticancer properties. Rheu-matic swellings, Inflammations, Wounds, Ulcers, Allergies, Eczema, Pruritus, Worm infestations.



Mimusops elengi

Common names: Spanish cherry, Elenji
Family: Sapotaceae

Description: Mimusops elengi are evergreen trees, bark dark grey, cracked or fissured longitudinal-ly. Leaves simple, alternate, spiral, elliptic-oblong, margin entire. Flowers bisexual, white, fragrant, 1-3 in axillary fascicles. Calyx lobes 8 in 2 series of 4 each, valvate. Corolla lobes 24, 3 series of 8 each. Stamens 8, alternating with pilose staminodes. Ovary 6-8-celled; 1 ovule in each cell. Fruit a berry, yellow, ovoid.

Flowering & Fruiting: December – August

Uses: Sacred Indian plant. Edible fruits. Bark is used in the treatment of diarrhoea and dysentery. A decoction of the bark, sometimes mixed with the flowers, is used as a gargle to treat gum inflamma-tion, toothache etc. It is also used to treat gonorrhoea, snakebites, fevers, wounds, scabies and ec-zema. It is often combined with tamarind bark (Tamarindus indica) then used as a lotion on skin complaints. The flowers are very aromatic and retain their fragrance for a long time after being dried. An essential oil used in perfumery can be distilled from them. A brown dye is obtained from the bark

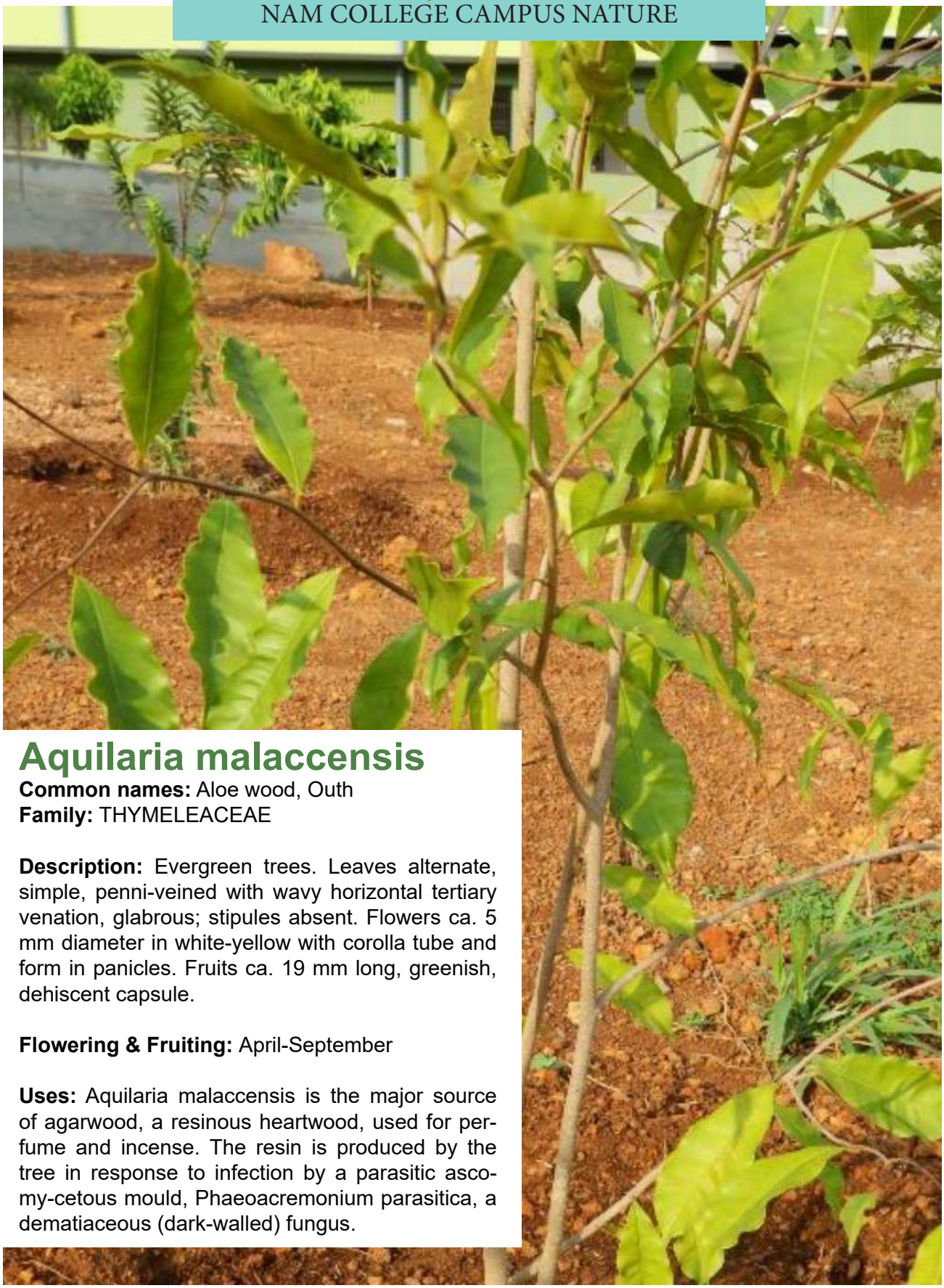
Holarrhena pubescens

Common names: Ivory tree, Kadalapala
Family: APOCYNACEAE

Description: Small deciduous trees; to 8 m high; bark rough, pale brown, to 8 mm, exfoliates in small flakes; latex milky white. Leaves simple, opposite, 7-18 x 3-12 cm, broadly ovate, ovate-oblong or ovate-lanceolate, apex acute or acuminate, base obtuse, margin entire, glabrous or puberu-lent beneath, membranous; petiole 4-6 mm, pubescent, stout; lateral nerves 10-14 pairs, prominent, arched, puberulous; intercostae reticulate. Flowers bisexual, creamy-white, slightly fragrant, in ter-minal and axillary corymbose cymes, appear along with new leaves. Calyx lobes 5, 2.5 mm long, ob-long-lanceolate, ciliate, glandular within at base. Corolla salvar shaped, lobes 5, oblong, obtuse, as long as the tube, tube 1.3 cm long, puberulous, mouth with a ring of hairs. Stamens 5, included, at-tached towards the base of the corolla tube, anthers sagitate; disc absent. Carpels 2, apocarpous; ov-ules many in each carpel, style 2 mm long; stigma fusiform, bifid. Fruit of 2 terete elongated follicu-lar mericarps connected at the tip and then free, 25 x 1 cm; seeds 8 mm, oblong, with tuft of silky brown hairs at the apex.

Flowering & Fruiting: April-October

Uses: Holarrhena pubescens is widely used in Ayurveda and traditional Chinese medicine. Its seeds are used as anthelminthic, and its bark is reported to have antidiarrheal properties. In Ayurvedic medicine it is used for treating anemia, jaundice, dysentery, stomach pains, diarrhea, epilepsy and cholera.



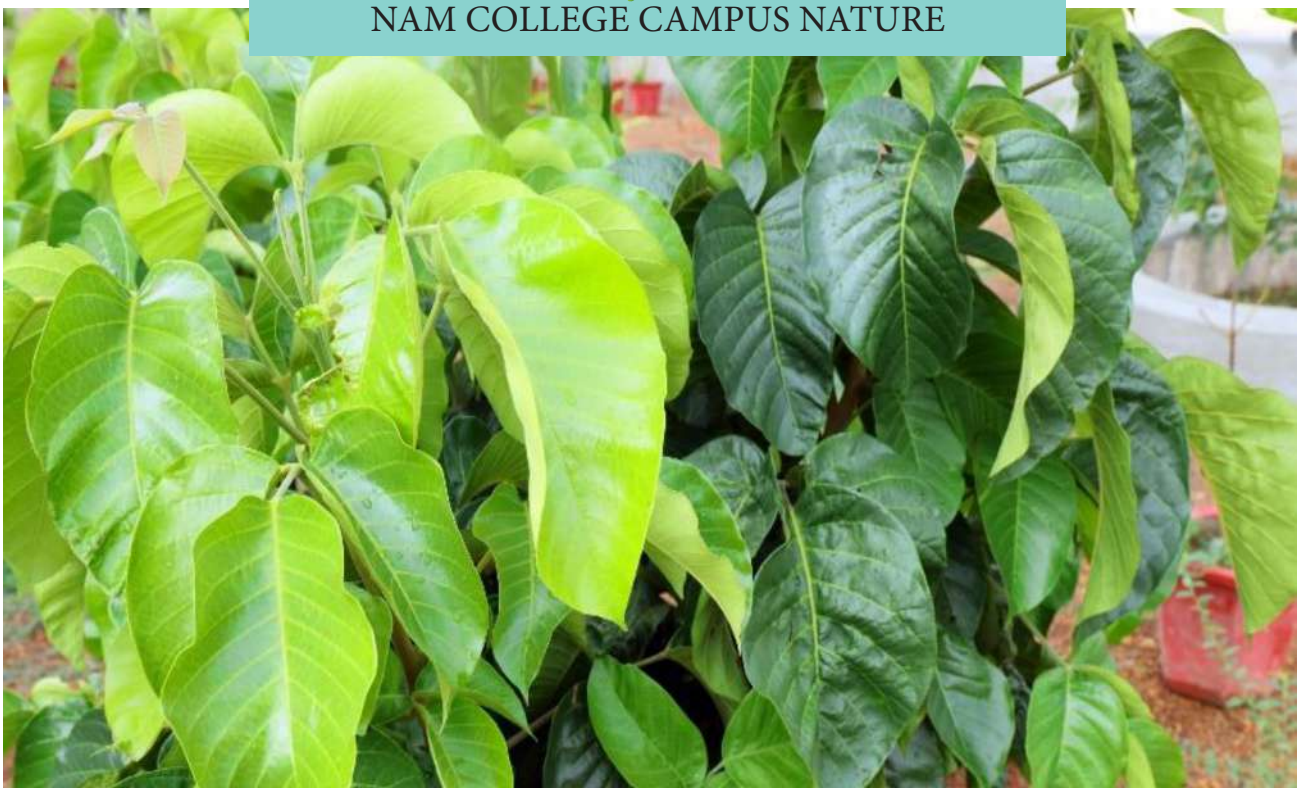
Aquilaria malaccensis

Common names: Aloe wood, Outh
Family: THYMELEACEAE

Description: Evergreen trees. Leaves alternate, simple, penni-veined with wavy horizontal tertiary venation, glabrous; stipules absent. Flowers ca. 5 mm diameter in white-yellow with corolla tube and form in panicles. Fruits ca. 19 mm long, greenish, dehiscent capsule.

Flowering & Fruiting: April-September

Uses: Aquilaria malaccensis is the major source of agarwood, a resinous heartwood, used for perfume and incense. The resin is produced by the tree in response to infection by a parasitic asco-my-cetous mould, Phaeoacremonium parasitica, a dematiaceous (dark-walled) fungus.



Sandoricum koetjape

Common names: Cotton fruit, Santol
Family: Meliaceae

Description: Santol is a large, ornamental evergreen tree with a dense, narrowly oval crown; it usually grows around 25 metres tall but with some specimens up to 50 metres. The bole, which is sometimes straight but often crooked or fluted, is branchless for up to 18 metres; has a diameter up to 100 cm; and buttresses up to 3 metres high. The tree yields an edible fruit that is popular in parts of the tropics. It also has a wide range of traditional medicinal uses and produces a useful timber. It is often cultivated in tropical areas, especially for its edible fruit and as an ornamental in parks, along roads etc

Flowering & Fruiting: June-October

Uses: The various parts are used in folk medicine, such as leaf decoctions for diarrhea and fever, bark poultice for ringworm and roots mixed with vinegar and water for diarrhea and dysentery. The stem contains 2 anti-inflammatory compounds, 3-oxo-12-oleanen-29-oic acid and katonic acid

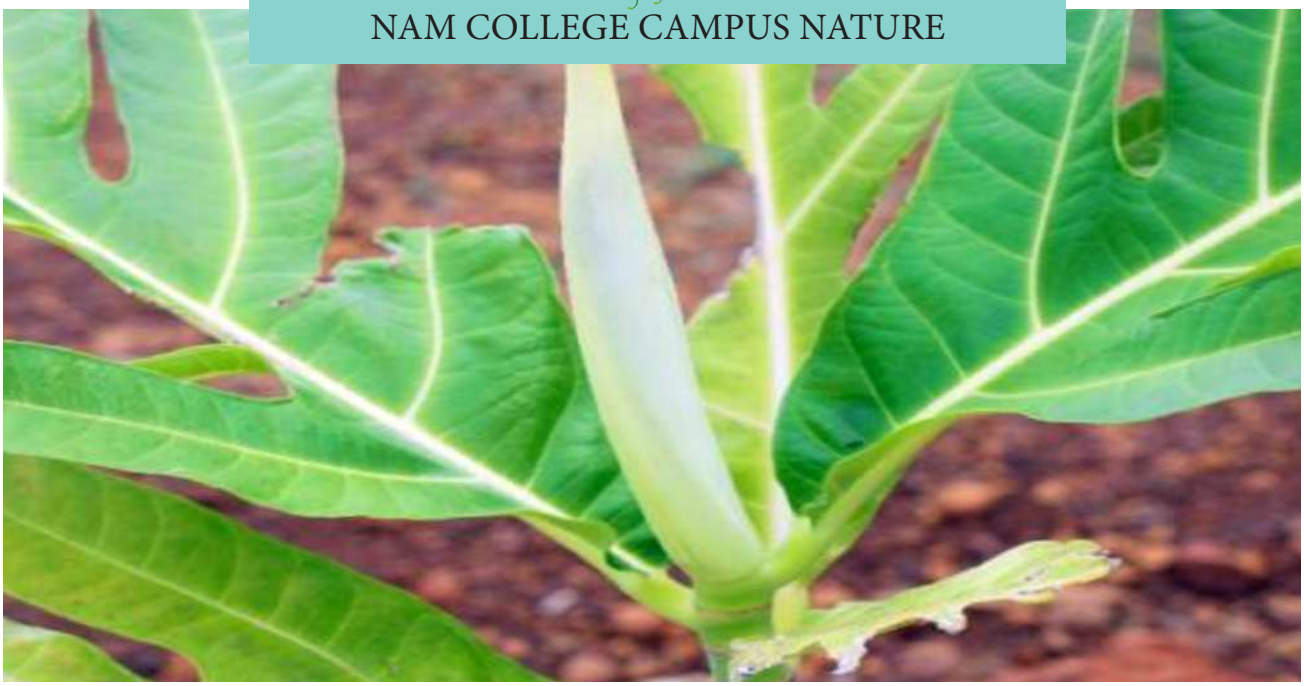
Saraca asoca

Common names: Asoka tree, Ashokam
Family: Fabaceae

Description: Saraca asoca are trees with bark surface brown or brownishblack. Leaves paripinnate, alternate; leaflets opposite, narrowly oblong, margin entire. Flowers bisexual, yellow-orange or red, in dense sessile paniculate corymbs. Calyx petalloid, cylindric; lobes 4, ovate-oblong, imbricate. Pet-als 0. Stamens 7 or 8, coloured; anthers versatile. Ovary half inferior, stipitate. Fruit a pod, flat, ob-long.

Flowering & Fruiting: February – August

Uses: Sacred Indian plant, Ayurvedic, ornamental. The juice obtained from boiling the bark is a cure for some ailments of women, and a pulp of the blossoms is one of the remedies used for dysentery.



Artocarpus incisus

Common names: Bread fruit, Kadachakka
Family: MORACEAE

Description: Evergreen trees, to 10 m high. Leaves simple, alternate; stipule 10-25 cm long, lateral; petiole 3-6 cm long, stout, brown tomentose; lamina 10-60 x 8-30 cm, broadly ovate, pinnatifid, base decurrent, apex acuminate, lobes oblong, margin of each lobes entire or dentate-serrate, charta-ceous, sericeous-pubescent along the nerves above, densely beneath; lateral nerves 8-12 pairs, pin-nate, intercostae scalariform, prominent. Flowers unisexual; spikes on the main branches; male cat-kin: 8-20 x 1-2 cm, pendent, oblong-cylindric; flower: perianth 2 mm, glabrous, bilobed; stamen 1; filament to 2 mm; anthers oblong; female spike: 4-8 x 3-6 cm; perianth 2 mm; ovary superior, 0.2 mm, obovoid; stigma simple. Fruit a sorosis 15-20 x 10-15 cm, oblong or round, set with conical process; peduncle 4-12 cm; seeds 1.5-2.5 cm, oblong-cylindric (seed formation is very rare).

Flowering & Fruiting: January-June

Uses: Breadfruit is consumed primarily for its nutritional benefits and as a major source of carbohydrates. The fruits and seeds are good sources of carbohydrates, protein, dietary fiber, fatty acids, pro-vitamin A, potassium, and calcium with significant amounts of ascorbic acid, niacin, and iron.

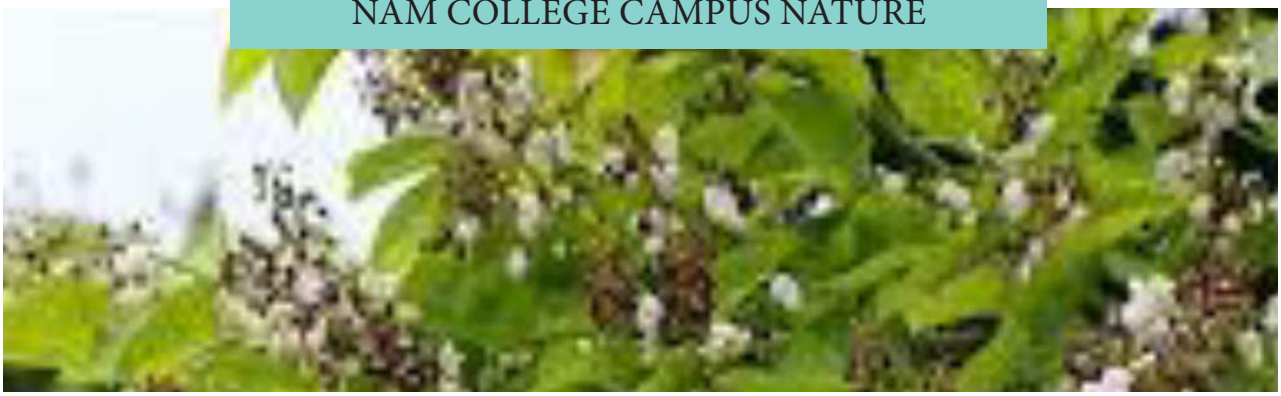
Nephelium lappaceum

Common names: Hairy Lychee, Rambutan
Family: SAPINDACEAE

Description: Trees, fairly large in natural vegetation; clonal trees small, 4-7 m high and usually with a spreading habit. Leaves alternate, paripinnate, up to 6-jugate; leaflets ovate to obovate, 5-28 cm x 2-10.5 cm, usually horizontal, above glabrous or sometimes slightly hairy on the midrib, beneath var-iably hairy, domatia common or absent, apex truncate to acuminate, nerves slightly to strongly curv-ing, veins scalariform to coarsely reticulate. Inflorescence pseudo-terminal to usually terminal. Flow-er either male(only stamens well developed) or hermaphrodite and either effectively female (stamens small, anther not dehiscing) or male (stigma not opening), actinomorphic, whitish, yellowish or greenish; sepals 4-5, nearly free to more than halfway connate, 0.7-2.1 mm long. Petals usually ab-sent, sometimes up to 4 reduced ones, not exceeding 1.6 mm. Disc complete, hairy or glabrous. Stamens (4)- 5-8 (-9), exserted in males; filaments has dense long hairs at least in the basal part; anther dehiscing latero-introrse, lengthwise. Pistil 2- or rarely 3-merous, densely hairy, well developed in hermaphrodite flowers; ovary warty; style well-developed; stigma spreading to finally recoiled. Fruits ellipsoid to subglobular, up to 6 cm x 3.5 cm, usually only 1 locule, yellow to purplish red, hardly stalked, apparently often at least in the apical part finely dehiscing, glabrous, usually densely set with filiform, curved, 0.5-2 cm long appendages; seed covered by a thick, juicy, white to yellow, translucent sarcotesta.

Flowering & Fruiting: March-July

Uses: Rambutans are rich in vitamin C, which is a potent antioxidant. Consuming antioxidants helps fight off free radicals, which are waste products in your body that can damage your cells. Antioxi-dants have been shown to reduce cellular damage and potentially reduce the risk of cancer in many individuals.



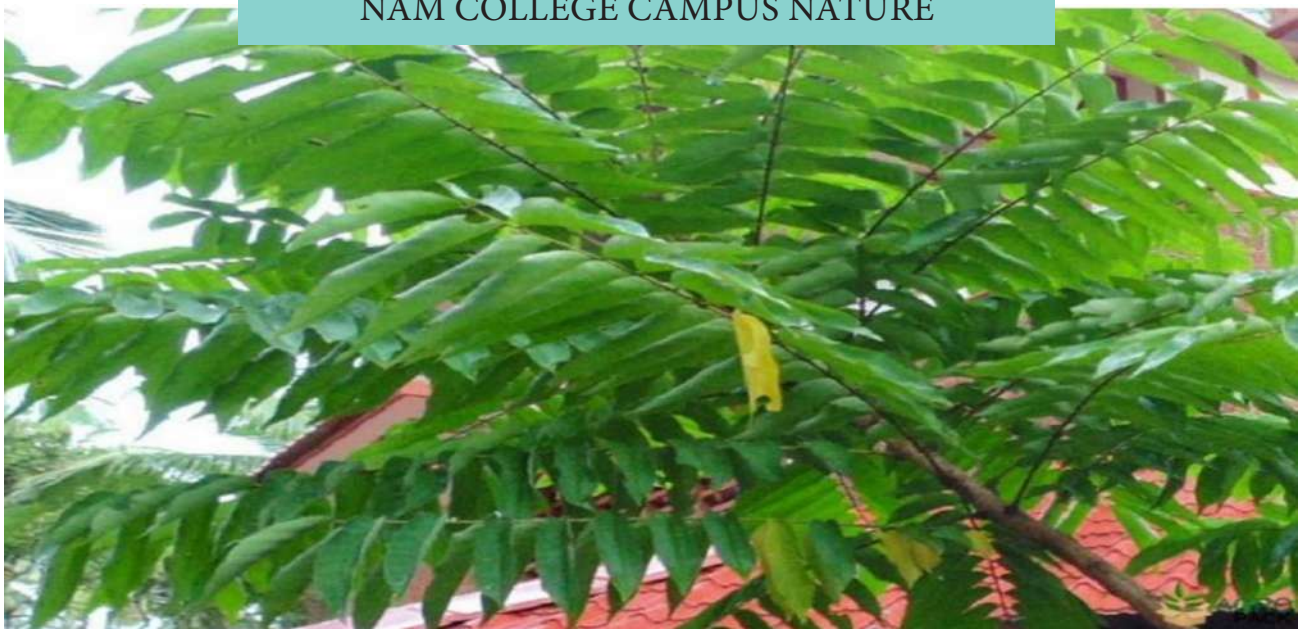
Pongamia pinnata

Common names: Indian beech tree, Minnari
Family: FABACEAE

Description: Evergreen trees, to18 m high, bark 10-12 mm thick, surface grey, smooth, speckled with brown; branchlets lenticellate. Leaves imparip-innate, alternate, leaflets 5-7, opposite, estipel-late; petiolule 6-10 mm; slender, pubescent; leaflet 4.5-12 x 2-7 cm, elliptic-acuminate, elliptic-lanceolate, ovate or ovate-oblong, apex acuminate, margin en-tire, glabrous, chartaceous; stipules lat-eral, small, oblong, cauducous; rachis 10-15 cm long, slender, pulvinate, pubescent; lateral nerves 5-8 pairs, pin-nate, ascending, slender, faint; intercostae retic-ulate, obscure. Flowers bisexual, purplish-white, 15-18 mm long, in lax axillary racemes, axis pu-bescent; bracts small, cauducous. Calyx tube cam-panulate; minutely 5 toothed, apex truncate; corolla exserted. Petals 5, clawed; standard subor-bicular with curved folds above the claw; wings oblique-ly oblong, slightly adnate above the claws to the obtuse keel petals which are joined near the tip. Stamens 10, monadelphous, the vexillary stamen free below and above; anthers uniform. Ovary sub-sessile, inferior, 1-celled, ovules 2; style in curved, beardless; stigma capitate. Fruit a pod, 4-5 x 2-2.5 cm, obliquely oblong, flat, thick, pointed at both ends, indehiscent, slightly falcate; seed one, reni-form.

Flowering & Fruiting: April-December

Uses: Pongamia pinnata has been applied as crude drug for the treatment of tumors, piles, skin dis-eases, and ulcers. The root is effective for treat-ing gonorrhea, cleaning gums, teeth, and ulcers, and is used in vaginal and skin diseases.



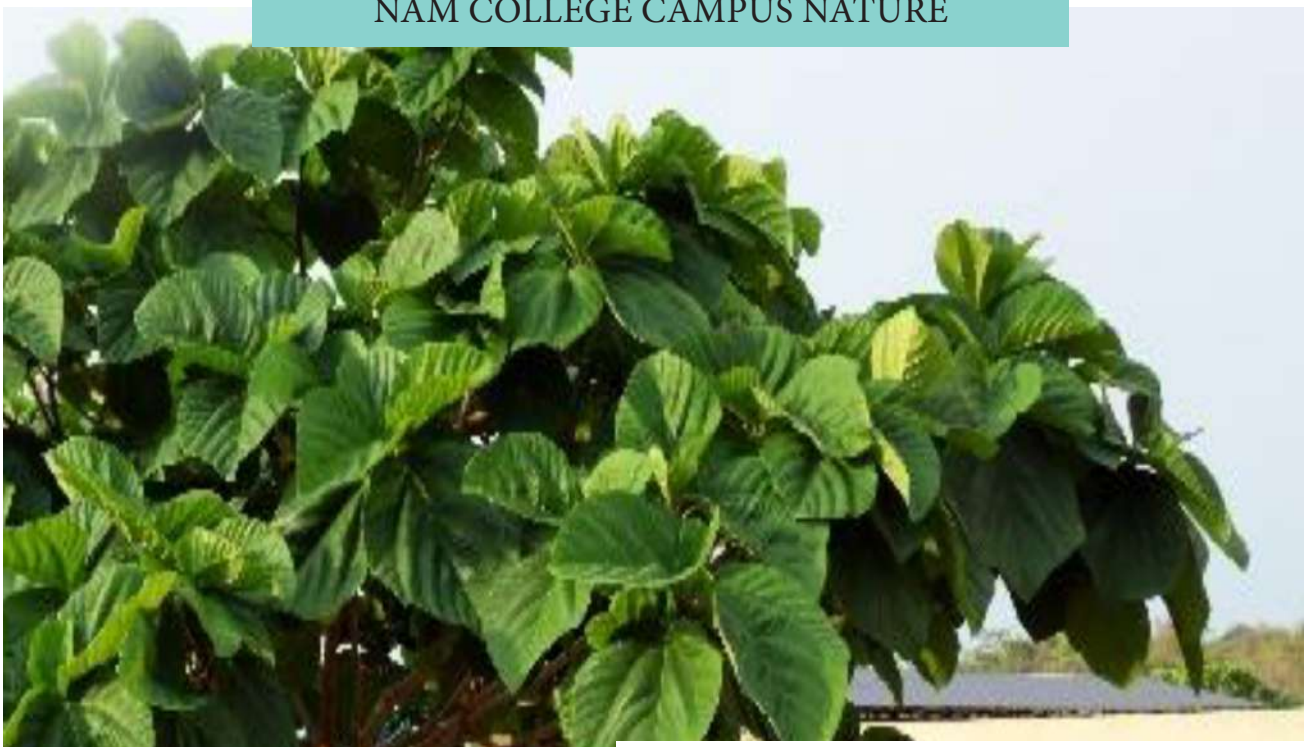
Averrhoa bilimbi

Common names: Cucumber tree, Bilimbi
Family: OXALIDACEAE

Description: Tree, to 15 m tall; young parts pale yellow to rusty-velvety. Leaves usually terminally tufted; rachises 15-55 cm long; leaflets 5-19 pairs, variable, acute to acuminate at apex, to 12 x 4 cm; lateral nerves 6-14 pairs. Panicles cauliflorous from tubercles on main trunk to ground level and on main leafless branches, fascicled and pendulous, to 18 cm long, rarely axillary; solitary and erect; pedicels 4-15 mm long; jointed near middle. Sepals elliptic to lanceolate or spatulate, acute or ob-tuse, 3-8 x 1.5-3 mm, sparsely puberulous outside near base, yellowish green to purplish green. Pet-als free, lanceolate-spatulate, 10-20 x 3-4 mm, glabrous inside, dark pink; claw 3-6 mm long. Sta-mens all fertile; filaments 2-12 mm long, unequal. Ovary ellipsoid, ca 4 mm long, densely appressed-pale-strigose; ovules 4-7 in each locule; styles to 9 mm long. Fruits cylindric, obtuse, obtusely an-gled, to 10 x 5 cm; seeds to 14, 6-7 x 4-6 mm, exarillate.

Flowering & Fruiting: March-May

Uses: Averrhoa bilimbi is principally cultivated for medicinal purposes in many tropical and sub-trop-ical countries of the world. It is mainly used as a folk medicine in the treatment of diabetes mellitus, hypertension, and as an antimicrobial agent.



Ficus auriculata

Common names: Giant Indian Fig, Atthi
Family: MORACEAE

Description: Small trees; branchlets brownish, hollow; latex milky. Leaves alternate, (orbicular-)ovate, to 40 x 30 cm, subcoriaceous, base cordate, apex acute, pubescent along nerves below, with glands in the axils of main basal nerves; petiole to 5 cm; stipules ovate-lanceolate, 2 cm. Figs cauli-florous, on short shoots from trunk or main branches, turbinate, subtended by 3 ovate, basal bracts; orifice covered by 3-angular bracts 6 mm; peduncle to 2.5 cm. Staminate: in several rows towards the ostiole. Tepals 3. Stamens 2, basally connate. Gall flowers below the staminate. Pistillate: Peri-anth 2-or 3-lobed. Ovary 1-celled; ovule 1; style thick, simple, subterminal, hairy. Fig turbinate, 6.5 cm wide, ribbed, brown hairy.

Flowering & Fruiting: November-February

Uses: Leaves are lopped for fodder. Stem bark juice is effective for diarrhea, cuts and wounds. Fruits are edible and can be made into jams and curries. Roasted figs are taken for diarrhea and dys-entery. Root latex is used in mumps, cholera, diarrhea and vomit

Nerium oleander

Common names: Indian oleander, Arali
Family: Apocynaceae

Description: An erect evergreen shrub, branches glabrous with milky juice, young branches green. Leaves 10-15 x 1-2 cm, linear-lanceolate, tapering at both ends, acuminate, thick coriaceous, midrib prominent, nerves numerous; petiole 5-7.5 mm long. Flowers white, pink or dark red, single or double in cultivated, form, fragrant 3-4 cm across, peduncle and pedicel hairy, bracts small, 5-7.5 mm long. Calyx c. 6.25 mm long, divided into 5 linear, acute lobes, hairy with gland at the base inside. Corolla tube 1.8 cm long, hairy within, throat narrow, ending in five twisted petals, tips rounded, corona of 5 scales near the throat of the corolla, cleft into 4-7 linear segments. Stamen included, fil-ament short, Anthers connivent and adherent to stigma, connectives hairy, produced upward into long thread-like hairy appendages. Ovary with two distinct carpels, style filiform, thickened up-ward; stigma two lobed. Fruit 12-20 cm x 7:5 mm long.

Flowering & Fruiting: November-May

Uses: Nerium oleander is an ornamental shrub native to northern Africa. Anvirze is an aqueous extract of the plant Nerium oleander which has been utilized to treat patients with advanced malig-nancies. Other medicinal uses of Nerium oleander include treating ulcers, haemorrhoids, leprosy, to treat ringworm, herpes, and abscesses.

Artocarpus heterophyllus

Common names: Jackfruit tree, Plavu
Family: Moraceae

Description: Evergreen tree with bark blackish-grey, mottled with green and black having exuda-tion milky white latex. Leaves are simple, alternate, obovateoblong, margin entire, glabrous and shining above and scabrous beneath. Flowers unisexual, minute, yellowish-green, in spikes enclosed by spathe-like bracts, male from young branches, catkin; perianth 2-lobed, stamen 1. Female catkins from the trunk ovary superior. Fruit a sorosis, yellowish-green.

Flowering & Fruiting: November - April

Uses: Fruits edible, aphrodisiac, timber yielding, nut edible, remedy for skin disorders. The ripe fruit may be eaten raw. Timber is used for making furniture and musical instruments. Heartwood yields a yellow dye. The bark is used for tanning and the leaves are eaten by cattle. Heated leaves can be used to treat wounds, and the ash, when burned with maize and coconut shell can treat ulcers. By mixing vinegar and latex, it can promote healing of abscesses, snakebite and glandular swellings. In the treatment against skin diseases and asthma, the root is used. Its extraction is used to treat fever and diarrhoea.

Vitex negundo

Common names: Five-leaved Chaste Tree, Vennocchi
Family: VERBENACEAE

Description: Vitex negundo, commonly called chaste tree, is a deciduous shrub or small, multi-trunked tree which typically grows to 10-15' tall (occasionally larger) in warm winter climates. In cold winter areas (es-pecially USDA Zones 5-6), it is more often grown as a 3-5' tall woody perennial. Features com-pound palmate, grayish-green leaves with 3-5 lance-shaped leaflets (each leaflet to 4" long) and tiny, fragrant, bluish-lavender lowers appearing in loose, 5-8" long panicles in mid to late summer. This species is generally less ornamental than Vitex agnus-castus but may be slightly hardier.

Flowering & Fruiting: March-July

Uses: It is an effective herbal medicine with proven therapeutic value. Chaste tree has been clinical-ly tested to be effective in the treatment of colds, flu, asthma and pharyngitis. Studies have shown that it can prevent the body's production of leukot-rienes which are released during an asthma attack. Chaste tree contains Chrysoplenol D, a substance with anti-histamine properties and muscle relax-ant. The leaves, flowers, seeds and root of Chaste tree can all be used as herbal medicine. A decoc-tion is made by boiling the parts of the plant and taken orally. Today, Chaste tree is available in cap-sule form and syrup for cough.

MANGO GROVE CHRONICLES:

Unveiling the Diversity of Mango Trees on our Campus

HERBAL HARMONY:
Discovering the Medicinal Treasures of Our Campus