

FLORA OF SCIE

*"Don't lose your sense of life, beauty and poetry because
you have been immersed in science for a long time."*

Introduction

Hi there! This is the Flora of Shenzhen College of International Education!

In the second semester of our 11th grade in SCIE, we recorded all plant species in our school, searched for their information, and finally made the flora.

Unlike traditional ones, this flora is made in an exact but not grave way. We used hand-painted pictures to amplify the obscure features, enabling readers to observe nuances and unique structures of plant species. As the authoritative flora would do, we also included the taxonomy, description in terms of morphology, use, distribution and locations in the small biosphere of our school.

What's worth mentioning is some plants may be used as the Chinese medicine, and therefore we give brief introductions for them to combine the traditional Chinese culture with planetary science.

Mission

Have you had the experience of watching same kinds of species everyday but still don't know their names? To let people call their names out is our primary goal.

Meanings

It is not only the record of plants, but also our memoir to this gorgeous campus full of greenery, the best proof of concerted efforts with all our fellows and friends, and the invaluable present we give to our school—SCIE.

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Contents

| | |
|---|----|
| CLERODENDRUM THOMSONIAE | 4 |
| CANNA GLAUCA | 5 |
| IMPATIENS HAWKERI | 6 |
| BOUGAINVILLEA SPECTABILIS | 7 |
| ZANTEDESCHIA AETHIOPICA | 8 |
| THALIA DEALBATA | 9 |
| CYPERUS ALTERNIFOLIUS LINN. SUBSP. FLABELLIFORMIS | 10 |
| FISCUS LYRATA WARB | 11 |
| OSMANTHUS FRAGRANS | 12 |
| TERMINALIA MANTALY | 13 |
| DELONIX REGIA | 14 |
| FALCATARIA MOLUCCANA | 15 |
| PHYLLOSTACHYS PROPINQUA | 16 |
| EUPHORBIA HUMIFUSA | 17 |
| COMBRETUM INDICUM | 18 |
| DYPsis LUTESCENS | 19 |
| PENNISETUM SETACEUM 'RUBRUM' | 20 |
| HEPTAPLEURUM ARBORICOLA | 21 |
| JASMINUM NUDIFLORUM | 22 |
| ZANTHOXYLUM BEECHEYANUM | 23 |
| DRACAENA MARGINATA | 24 |
| PARTHENOCISSUS TRICUSPIDATA | 25 |

Clerodendrum thomsoniae

(bleeding heart vine*)

Taxonomy:

Magnoliopsida
Rosidae
Asteranae
Lamiales
Lamiaceae
Clerodendrum
Clerodendrum thomsoniae

Description: It is the evergreen vine or shrub with a twining growth. It can grow up to 7m in length. Its foliage is smooth. Dark green glossy leaves are elliptic with entire leaf margin, measuring up to 15 cm long and 7 cm wide.

Leaves are deeply veined and have a long pointed tip (acuminate apex). Leaf base is obtuse or rounded. Leaves are arranged oppositely along the stem. Its Flowers are composed of 4 white, ovate calyces and 5 dark red, obovate petals and 5 white, long stamens.

Use: *C. thomsoniae* is known to be used as an ornamental in many places including Colombia, China, Puerto Rico, and the Virgin Islands.

Distribution: *C. thomsoniae* is a vine which is native to western Africa but has been widely cultivated in tropics and subtropics around the world.

Location in SCIE: It can be found in the iron rods lined in the stairway from G floor to 1st floor.



Canna Glauca

(*Louisiana Canna**)

Taxonomy:

Angiospermae

Liliopsida

Zingiberidae

Zingiberales

Cannaceae

Canna

Canna Glauca

Description: It is a herbaceous perennial plant which has unbranched stems and grows up to 1 m tall. Leaf blades are light green, narrowly ovate, measures 28 - 70 cm long and 1.5 - 14 cm wide, and clasping the stem at the base; both sheath and blade are glaucous, base cuneate, apex acute. It has the fruit capsule that measures 2 - 5

cm long and 2 - 4 cm wide, with globose to ellipsoid shape. Young, immature fruits are covered with small wart-like pattern on the fruit surface. It has the bisexual flowers which are usually yellow and red.

Use: It is planted as the ornamental plant, but its stems are starchy, edible part which is eaten as staple in some part of southern America.

Distribution: *C. Glauca* is native to the southeastern and south-central United States .

Location in SCIE: They are planted on the terrace of 8th floor far from the swampy wet land around artificial stream which is more suitable for them.



Impatiens hawkeri

(Jewelweed*)

Taxonomy:

Magnoliopsida
Rosidae
Geraniales
Balsaminaceae
Impatiens
Impatiens hawkeri

Description: These succulent, branched perennial herbs grow up to 1'3" tall, mounding with lower leaves up off the ground. Its flowers have conspicuous, elongated spur. Its Lateral sepals are suborbicular, broad, and acuminate.

Leaves have stalked glands on teeth rising above the leaf plane.

Use: It serves as the ornamental flowering plants that can be planted in planters, hanging baskets, containers, or in the shading area around the tree.

Distribution: It is native to Papua New Guinea and the Solomon Island and has been introduced across the world.

Location in SCIE: it can be found in the hallway to the Ann Café across from the Drama Classroom.



Bougainvillea spectabilis

(great bougainvillea*)

Taxonomy:

Magnoliopsida
Caryophyllidae
Caryophyllales
Nyctaginaceae
Trib. Bougainvilleae
Bougainvillea
Bougainvillea spectabilis

Description: It has the woody perennial vine or shrub (or small tree), erect or clambering, attaining a height of up to 12 m and a width of 7 m. Its branches are pilose, with straight, axillary, and pilose spines. Leaves are alternate, with a length of 2.6-2.5 × 2.7- 5 cm. Their shapes are ovate, the apex acute, obtuse, or acuminate. The base is obtuse, rounded, or attenuate, slightly asymmetrical, the margins sinuate. Its Flowers are in axillary clusters of threes, each flower with a purple, red, pink, or orange bract beneath, to 3 to 4 cm long.

Use: *B. spectabilis* contains pinitol, which is considered to be helpful in the treatment of diabetes. A study of aqueous and methanolic extracts of the leaves showed good glucose tolerance and significantly reduced intestinal

glucosidase activity, with regeneration of insulinproducing cells and increase in plasma insulin. It is also the widely commercialized ornamental and hedge plant.

Distribution: *B. spectabilis* is native to Brazil. It has been extensively introduced across tropical and warm temperate regions of the world.

Location in SCIE: They are climbing on the overline bridge between A and B Building.



Zantedeschia aethiopica

(Calla Lily*)

Taxonomy:

Spermatophyta
Angiospermae
Monocotyledonae
Araceae
Zantedeschia
Zantedeschia aethiopica

Description: Zantedeschia aethiopica, commonly called calla lily, is a rhizomatous perennial.

The large, arrowhead-shaped (sagittate) leaves and 1, tall scapes emerge from underground, fleshy rhizomes. The showy flowers are of the typical arum family form, consisting of a yellow, spike-like spadix surrounded by a bright white, funnel-shaped spathe that can reach around 9" long.

Use: The root is used as the traditional Chinese medicine. The dosage is 3~10 grams. It is used to treat colds in summer, abdominal pain due to Sha gas, vomiting and diarrhea, miasma malaria, and leucorrhea. External use for rheumatism and bone pain, carbuncle and furuncle poisoning, scrofula and phlegm core, snake and insect bites. However, its roots are poisonous and must be decocted for a long time to be used. Apart from its use medical use, it is also planted as ornamental plant.

Distribution: It is native to Cape Provinces, Free State, KwaZulu-Natal, Lesotho, Northern Provinces, Swaziland introduced around the world as the ornamental plant.

Location in SCIE: It can be found around the artificial stream close to the Ann Café.



Thalia Dealbata

(powdery thalia*, hardy canna*, mealy thalia*)

Taxonomy:

Plantae
Liliopsida
Zingiberidae
Zingiberales
Marantaceae
Thalia
Thalia dealbata

Description: *Thalia dealbata* is a rhizomatous marsh or marginal aquatic perennial that features long-stalked canna like foliage and violet blue flowers. It is a tall plant (1.8-3m) that adapts to

ponds and water gardens that has shallow water or marshes.

Use: It is normally planted as ornamental plants in the Margins of ponds, pools and large water gardens.

Distribution: It is native to swamps and ponds from South Carolina to Florida west to Missouri and Texas and has been introduced to Europe and China.

Location in SCIE: They are grown in the Turtle Pond close to the east gate.



Cyperus alternifolius Linn. subsp. *Flabelliformis*

(umbrella plant*)

Taxonomy:

Magnoliopsida

Liliidae

Commelinanae

Poales

Cyperaceae

Cyperus

Cyperus involucratus

Description: It has short, stout rhizome and stout stems to 60 cm high. Leaves are reduced to closely appressed and have very pale brown

basal sheaths. There are also small clusters at tips of rays from ovoid to linear-oblong, compressed, shining. Glumes are densely imbricate, (± 2 mm) long, ovate, obtuse, hyaline, white to light brown with green keel

Use: It serves as the ornamental plant grown near the pool in the swampy area.

Distribution: It is native to Eastern Africa, Madagascar, and Arabian Peninsula.

Location in SCIE: They are found to grow beside the artificial river around the climbing wall.



Ficus Lyrata Warb

(Fiddle-leaf Fig*)

Taxonomy:

Magnoliopsida

Rosidae

Rosanae

Rosales

Moraceae

Ficus

Ficus lyrata

Description: Its small to medium-sized tree can grow up to 12m height when grown in ground, but can reach 30m in native habitat. It has crown that is sparse in young trees, but dense and rounded in mature trees under ideal conditions. Its trunk is solitary with greyish shallowly-cracked bark. Its foliage is glossy dark green, leathery, large (45cm by 30cm), yellowish veins prominent on upper surface and bulging below, obovate to lyrate (lyre-shaped) or pandurate (fiddle-shaped), often with wavy margins.

Use: It can be planted as a shrub of plants grown alone (in SCIE), in urban plantings of parks, highways median, and streets without sidewalk as it withstands the overwhelming atmosphere of the cities, or as a shade tree. It mainly serves the purpose of ornamental need.

Distribution: It is distributed in lowland rainforests across tropical Africa and has been introduced to China.

Location in SCIE: They are grown beside the artificial river of Ann Café.



Osmanthus fragrans

(Fragrant Olive*)

Taxonomy:

Magnoliopsida

Asteridae

Scrophulariales

Oleaceae

SubFam. Oleoideae

Trib. Oleae

Osmanthus

Osmanthus Sect. *Osmanthus*

Osmanthus fragrans

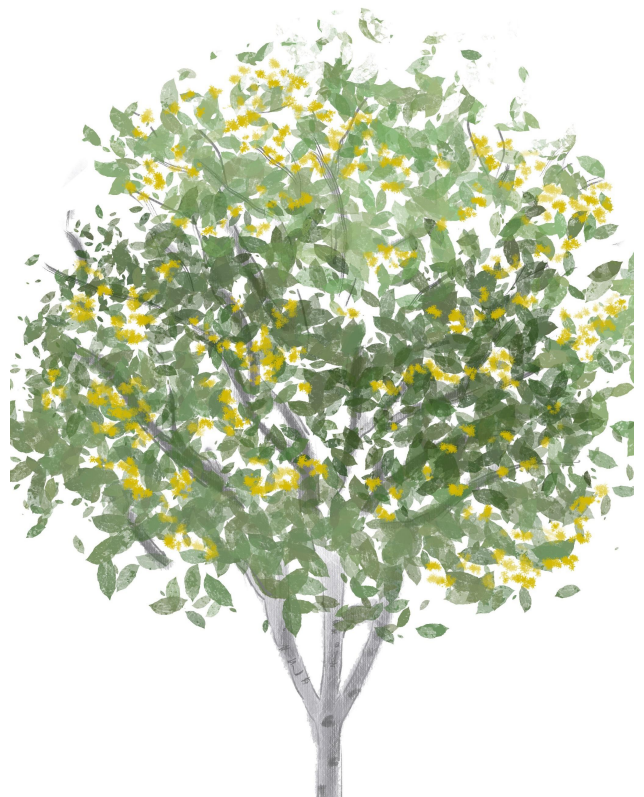
Description: *O. fragrans*, commonly called fragrant olive, sweet olive or sweet tea, produces clusters of not particularly showy flowers that have an extremely powerful apricot fragrance. It is a small, upright, evergreen tree or large shrub that will typically grow to 3-4.5m tall in cultivation, but may reach 6-10m tall in its native habitat in

Asia (Himalayas, China and Japan). It has oval, leathery, glossy green leaves (to 10cm long). Leaf margins may be smooth or finely toothed. Tiny white flowers appear in axillary clusters in spring, with some sporadic bloom through the summer into fall. Varieties of the species bear flowers in orange, gold and reddish hues. The plant has very fragrant flower. In China, flowers are sometimes added to teas.

Use: Its flowers can be dried to make tea, and it can also be planted as flowering or shading plant.

Distribution: It has the native range of Himalayas, China, and Japan.

Location in SCIE: It is found in the platform of 7th floor in teaching building.



Terminalia mantaly

(Madagascar Almond*)

Taxonomy:

Magnoliopsida

Rosidae

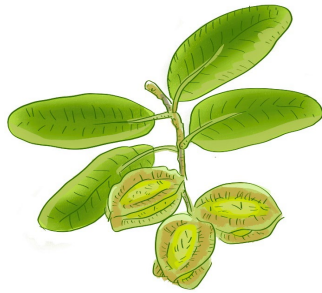
Rosanae

Myrtales

Combretaceae

Terminalia

Terminalia neotaliala

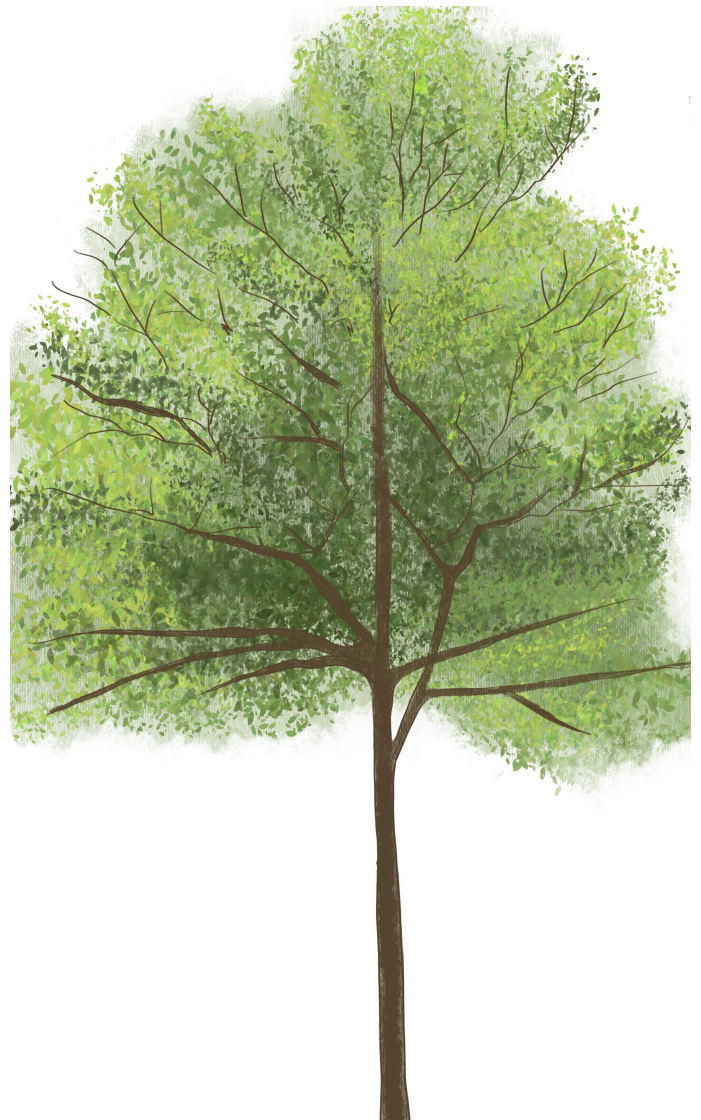


Description: It is small to medium tree, 10-20m height. Its crown is layered in symmetrical tiers. Leaves are small (2-5cm long x 1cm wide), mottled grey-green with irregular creamy-white border, young leaves are pinkish-red, margins uneven to crenate, produced in whorls at branch tips. Flowers and fruits are not observed in SCIE. Its bark is smooth, mottled pale grey, with protuding brownish lenticels (streaks or spots).

Use: It is mainly used as ornamental trees planted lined with streets. The pericarp of its fruits can be used to make dye.

Distribution: The native range of *T. neotaliala* is Madagascar. It is introduced to many tropical and subtropical areas in the world like Singapore and Southern China.

Location in SCIE: They are grown outside the window of Mushan Canteen.



Delonix regia

(*Flamboyant**, *Royal Poinciana**)

Taxonomy:

Angiospermae
Magnoliopsida
Rosidae
Fabales
Caesalpinaceae
Trib. Caesalpinieae
Delonix
Delonix regia

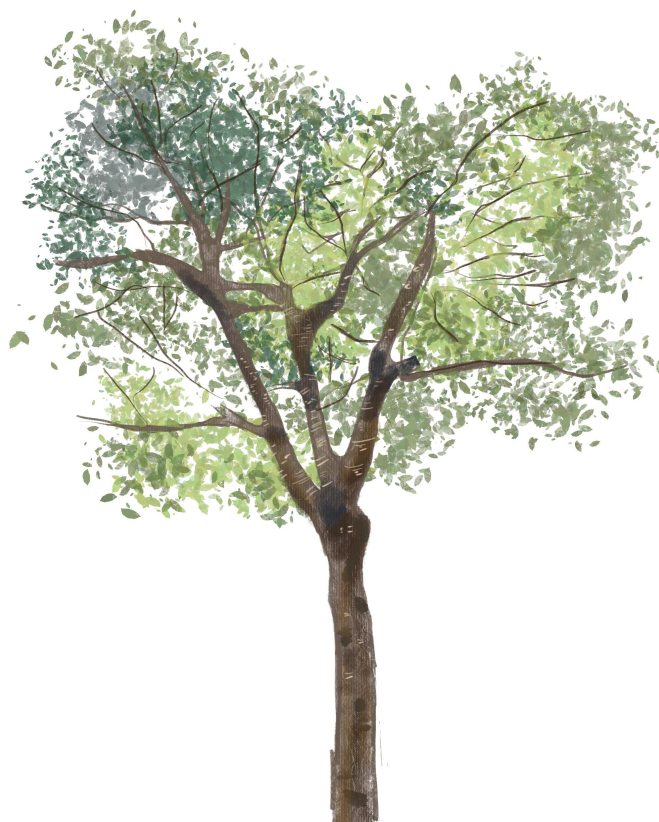


Description: It is deciduous in climates with a dry season, shedding its leaves at the end of the wet season. In Singapore and other places without pronounced seasonality, the time of leaf-shedding varies among individuals. Its Barks are grey and smooth, and its short trunk has buttress roots. It is 9-15 m tall with an umbrella-shaped crown. Branches are weak and prone to breakage by wind. It has Bipinnately compound leaves have alternate leaf arrangement (20 - 60 cm long). Each leaf has 9 - 25 pairs of pinnae; each pinnae consists of 14 - 30 pairs of leaflets. Leaflets are small and oblong (8 - 10 mm long, 3 - 4 mm wide).

Use: It is a good source for animal feed and timber. Also, *D. regia* is said to have antibacterial, antidiabetic, antidiarrheal, antifungal, anti-inflammatory, antimalarial, antimicrobial, antioxidant, cardio-protective, gastro-protective,

hepato-protective and healing activity. It is used in traditional medicine to treat a range of conditions including constipation, inflammation, rheumatoid arthritis, diabetes, pneumonia and malaria.

Distribution: *D. regia* is native to Madagascar, with a latitudinal range of 12-25°S. Its altitudinal range is 0-2000 m. It is naturally found in wet tropical forests. It has been planted in the Indo-Pakistan subcontinent for more than 100 years and has also been introduced to many other countries in the Old and New World.



Falcataria moluccana

(Batai* & Peacock's Plume*)

Taxonomy:

Dicotyledoneae
Archichlamydeae
Rosales
Rosineae
Leguminosae
Mimosoideae
Ingeae
Albizia

Description: It is medium-sized to fairly large, unarmed tree up to 40 m tall, bole straight and cylindrical in dense stands, branchless for up to 20 m and up to 100 cm or sometimes more in diameter; its bark surface is white, grey or greenish, smooth or slightly warty, sometimes shallowly fissured and with longitudinal rows of lenticels; its inner bark is white, yellowish, pink or pale red-brown; young parts are often densely tomentose. Leaves are alternate and bipinnate, up to 40 cm long, with 8-15 pairs of pinnae, each pinna with 15-25 leaflets.

Use: *Albizia Falcataria* is planted extensively for reforestation and afforestation of denuded and eroding land. Because it is very fast-growing, the wood is widely used for fuelwood and charcoal production. It is an important shade tree for tea and other crops, its fast growth and good shading properties outweighing its sensitivity to strong winds and its relatively short life.

It is being tested in alley-cropping systems, although its tolerance of coppicing is limited. It is a source of paper pulp and has been used for the manufacture of viscose rayon.

Distribution: It is native to the Moluccas, New Guinea, the Bismarck Archipelago including the Admiralty Islands and the Solomon Islands. It is widely planted throughout the humid tropics in Guangxi, Guangdong, and Fujian in China.

Location in SCIE: It is planted in the center of Ann Café area.



Phyllostachys propinqua

(Beijing Bamboo*)

Description: *Phyllostachys propinqua* is an evergreen Bamboo that can grow from 3-9 meters. The species is hermaphrodite (has both male and female organs) and is pollinated by wind.

Use: Its tender shoots are edible, and it is mainly planted as ornamental plants.

Distribution: It is native to Beijing and southern part of China.

Location in SCIE: It is planted across from the East Gate inside the campus.



Euphorbia humifusa

(*purging croton**)

Description: *Euphorbia humifusa* is an annual growing to 0.2 m. The species is monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and is pollinated by Insects.

Use: It has precious medical property since it is anthelmintic and vulnerary. The whole plant is depurative, diuretic and styptic. A decoction is used in the treatment of jaundice, dysentery, enteritis, poisonous snake bites and traumatic bleeding.

Distribution: It is native to North-Central China, South-Central China, and Southeastern China.

Location in SCIE: It was sometimes found in the ground near the door of G120.



Combretum Indicum

(Rangoon Creeper*)

Taxonomy:

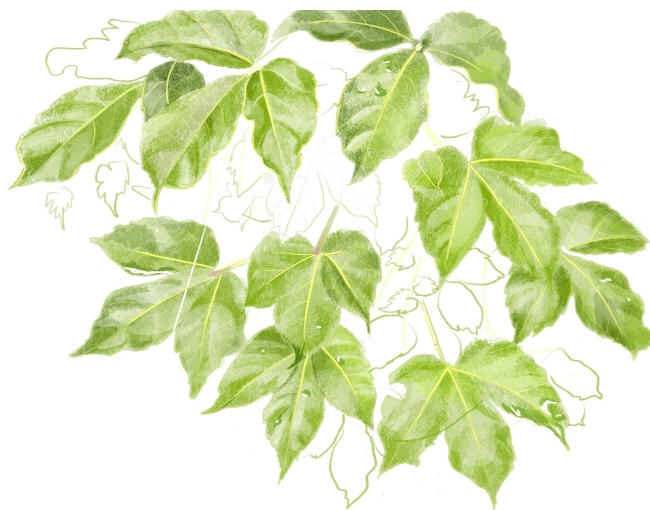
Magnoliopsida
Rosidae
Myrtales
Combretaceae
Quisqualis
Quisqualis indica

Description: It is a woody climber, which climbs by means of hooks. Its leaves are arranged in opposite pairs along the stem and are elliptic to elliptic-oblong in shape, it is abaxially pilose and adaxially glabrous except for the mid-vein which is brown and pilose. The leaf petiole is modified into a thorny grappling hook as a climbing aid. The young branches are tomentose (tiny hairs). The double-petaled flowers are borne on a pendant raceme and are white in colour, the upper surface of the flower turns pink then red over a period of time. Its flowers are slightly fragrant.

Use: *C. indicum* has been commercially sold for use in traditional medicine (fruits call *Shijunzi* are usually sold in small drug shops and Chinese pharmacies throughout Malesia). *C. indicum* is also most commonly grown as an ornamental, as its flowers are showy and turn pink with age. It is also used as a source of quisqualic acid which is the poison that can be used to destroy the neuron in people's spinal cords and brains.

Distribution: *C. indicum* is considered native to southern Asia and possibly tropical Africa. It has since been widely cultivated in all tropical regions of the world like southern China.

Location in SCIE: They can literally be found everywhere in SCIE. They are climbing on both Teaching Building A & B, making a successful three-dimensional afforesting and 150% greening rate possible.



Dypsis lutescens

(Yellow Butterfly Palm*)

Taxonomy:

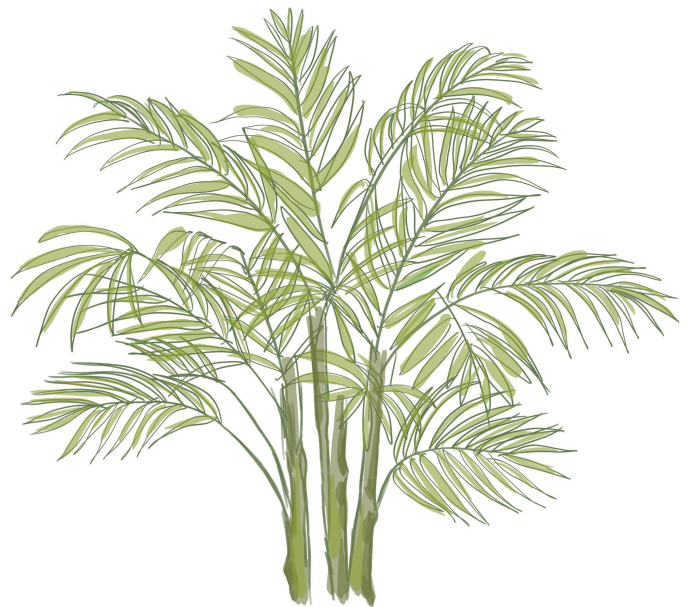
Angiospermae
Liliopsida
Arecidae
Arecales
Palmae
SubFam. Arecoideae
Trib. Areceae
Subtrib. Dypsidinae
Chrysalidocarpus
Chrysalidocarpus lutescens

Description: It will typically grow to 3-10m tall. It is multiple-ringed, cane-like, yellow stems growing from the base of the plant in clusters. Stems sometimes resemble bamboo when suckers are removed. Stems are topped with pinnate, upward-curving, light green leaves (to 1-2m long) with yellow midribs. Each leaf has lance-shaped leaflets per side. Yellow flowers bloom in summer in panicles to 0.6m long. Flowers are not particularly showy in *D. lutescens*.

Use: It is one of the top air purifying plants and a natural humidifier that will improve the air quality of your home or office as well as adding a relaxing tropical feel.

Distribution: *Dypsis lutescens* is native to Madagascar, mainly in the north-east coastal region between Mahanoro and Antalaha but it has also been recorded in Daraina and Farafangana. It is also widely introduced around the world as the ornamental plant.

Location in SCIE: They are grown beside the artificial river of Ann Café.



Pennisetum setaceum 'Rubrum'

(Green Fountain Grass*)

Taxonomy:

Magnoliopsida
Liliidae
Commelinanae
Poales
Poaceae
Pennisetum
Pennisetum setaceum
Pennisetum setaceum 'Rubrum'

Description: Purple Fountain Grass typically grows up to 90-150cm tall and 60-120cm wide rounded mounds. They are topped with soft, fluffy, red-burgundy flower on arching stems. Its flowers can grow up to 30cm long. It is highly drought-resistant and performs the best in full sun.

Use: It is mainly planted as the ornamental plant.

Distribution: This species is wide-spread in central and southern California.

Location in SCIE: It is in the terrace of 7th floor.



(Dwarf Umbrella Tree*)

Taxonomy:

Magnoliopsida
Rosidae
Asteranae
Apiales
Araliaceae
Heptapleurum
Heptapleurum arboricola

Description: It is the Evergreen shrub, which is able to grow up to 3 - 6 m tall. Its leaves palmately compound, each leaf containing 7-9 leaflets, obovate-oblong to elliptic in shape and measuring 10 - 15 cm long. It has Red tiny flowers borne in a compound panicle. Its fruits are organ drupes which become black when reaching mature stage.

Use: It is not surprised that *H. arboricola* was an ornamental plants because of its leaves, but it is also a traditional Chinese medicine and its chemical content is applied: *H. arboricola* extract is studied. It is found that it could has anti-inflammatory effect. According to the Chinese folklore, it is used to cure the rheumatoid arthritis, fractures, sprains, low back pain, and bone pain.

Distribution: It is native to Taiwan China and Hainan Province.

Location in SCIE: They are found in the shading area beside the school gym under Teaching Building A.



Jasminum nudiflorum

(winter jasmine*)

Taxonomy:

Magnoliopsida
Rosidae
Asteranae
Lamiales
Oleaceae
Jasminum
Jasminum nudiflorum

Description: *J. nudiflorum*, commonly called winter jasmine, is a trailing, viny shrub that grows from a central crown. As a shrub, it typically grows in a sprawling mound to 1.2m tall with arching branches, and spreads by trailing branches that root as they go along the ground. As a vine, it typically grows to 3-4.5m. Willowy

green stems are attractive in winter. Non-fragrant, bright yellow flowers bloom along the stems in late winter before the leaves. Compound, trifoliate, dark green leaves with ovate leaflets

Use: This plant is used on slopes, in raised planters, in foundations, as specimens, and on overhanging walls.

Distribution: *B. spectabilis* is native to Brazil. It has been extensively introduced across tropical and warm temperate regions of the world

Location in SCIE: They are climbing on the overline bridge between A and B Building.



Zanthoxylum beecheyanum

(Chinese Pepper*)

Taxonomy:

Magnoliopsida

Rosidae

Rosanae

Sapindales

Rutaceae

Zanthoxylum

Zanthoxylum beecheyanum

Description: *Z. beecheyanum* is a deciduous Shrub that can grow up to 1.5 m that can spread 1.0m. The species is dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required). The plant is not self-fertile. The flowers are usually arranged in panicles and usually function as male or female flowers with four sepals and

four petals, the sepals remaining attached to the fruit.

Use: Its fruits are important Chinese condiments used in Sichuan cuisine, but this species is mainly used as ornamental shrub. It also has medicinal properties, especially for its roots. Pepper root can help to treat rheumatic bone pain, skin impact caused by injury, etc., and has the effect of regulating meridian and activating collaterals. In addition, the fruit of *Z. beecheyanum* can also be used to boil with water, drinking it to treat diarrhea and so on.

Distribution: It is native to Japanese but is introduced to China.

Location in SCIE: They are found to be planted around the 3v3 basketball court near the east gate with dragontrees.



Dracaena marginata

(Dragon Tree*)

Taxonomy:

Spermatophyta
Angiospermae
Monocotyledonae
Liliales
Agavaceae
Dracaena
Dracaena marginata

Description: *D. marginata* is a very popular houseplant that typically grows to 2m tall or more over time unless pruned shorter. It features perhaps the narrowest leaves of the various species of dracaena sold in commerce. Slender gray upright stems are topped by tufts of arching, glossy, sword-shaped leaves (to 0.5m long 5cm wide). Leaves are sometimes with narrow reddish edges. Lower leaves fall off with age leaving distinctive diamond-shaped leaf scars on the stems.

Use: It is largely used for agroforestry as the ornamental plant.

Distribution: It is native to Madagascar and Mauritius and has been introduced across the tropical area in the world.

Location in SCIE: It was found to be surrounding the 3x3 basketball court near the east gate.



Parthenocissus tricuspidata

(*Boston ivy**)

Taxonomy:

Magnoliopsida

Rosidae

Rosanae

Vitales

Vitaceae

Parthenocissus

Parthenocissus tricuspidata

Description: *P. tricuspidata* are vigorous deciduous climbers with either tendrils or disk-like suckers, and lobed or palmate leaves which often color brilliantly in autumn. It has inconspicuous green flowers that are sometimes

followed by attractive blue or black berries. It can grow up to 30m with proper support like walls with the leave range of 5 to 22cm.

Use: It is used as ornamental plant to decorate walls.

Distribution: It is native to eastern Korea, Japan, and northern and eastern China and has been introduced to the United States and European countries.

Location in SCIE: They are climbing all over the iron rods standing from the entrance of Ann Café to the entrance Of Teaching Building B in G floor.





