PLANTS OF MAGNETIC ISLAND

3rd EDITION

BETSY R. JACKES

JAMES COOK UNIVERSITY
AUSTRALIA

SCHOOL OF MARINE and TROPICAL BIOLOGY
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Jackes Betsy R (Betsy Rivers)
Plants of Magnetic Island

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ACKNOWLEDGMENTS

This publication is based on "Plants of Magnetic Island', Editions 1 (1987) and 2 (2003). To all those who have collected plants for the 1987 edition and subsequently my sincere thanks. Art work is by Ashley Field, Geoff Kelly and Norm Duke, with small sketches by myself. Other illustrations are based on photocopies and recently coloured scans of actual plants. Photographs of flowers chiefly by Andi Cairns, John Elliott, Chris Gardiner, Don Kinsey and Andrea Lim. The map was prepared by Adella Edwards, Cartography, James Cook University, modified from Sandercoe (1990) with permission of the Director, Queensland Herbarium.
Andi Cairns provided valuable assistance with the layout and with suggestions on the manuscript. To all those who have suggested changes, who have provided lists of plants, particularly the staff of the Queensland Herbarium, my grateful thanks.

Names updated 2021.

GUIDE TO THE PLANTS OF MAGNETIC ISLAND MANGROVES, DUNES AND WOODLANDS

Betsy R. Jackes

Magnetic Island (19^0 08 S, 148^0 50 E), offshore from the north Queensland city of Townsville, was first named by Captain James Cook in 1770. He called it "Magnetical Point, land which has the appearance of an island", because his compass moved erratically as he passed it.

This large island, about 5,000 ha in area, rises to 493 m at Mt Cook, the highest point. Much of the island is composed of granodiorite. This is reflected in the prominent, large granite boulders present around most headlands. The rocks in the West Point area, which are mainly acid agglomerates, are volcanic in origin.

Much of the terrain is rugged with numerous valleys and gullies. Lowland areas are found behind most of the popular bays. The latter are mostly fringed by beach ridges and dunes.

The dominant vegetation of the island is mixed eucalypt woodland with closed forest occurring in moist protected gullies, such as along Gustav Creek at Nelly Bay. Between West Point and Huntingfield Bay there are extensive areas of semi-deciduous dry rainforest. Mangrove forests are well developed on the leeward side between Cockle Bay and West Point, as are saltmarshes and samphire flats. Small areas occur elsewhere, particularly near Horseshoe Bay.

The vegetation units on the island were described by Carolyn Sandercoe (1990). They are also reproduced in detail on a 1:15 000 map of the Island published by QPWS and the Townsville City Council (Anon.1989).

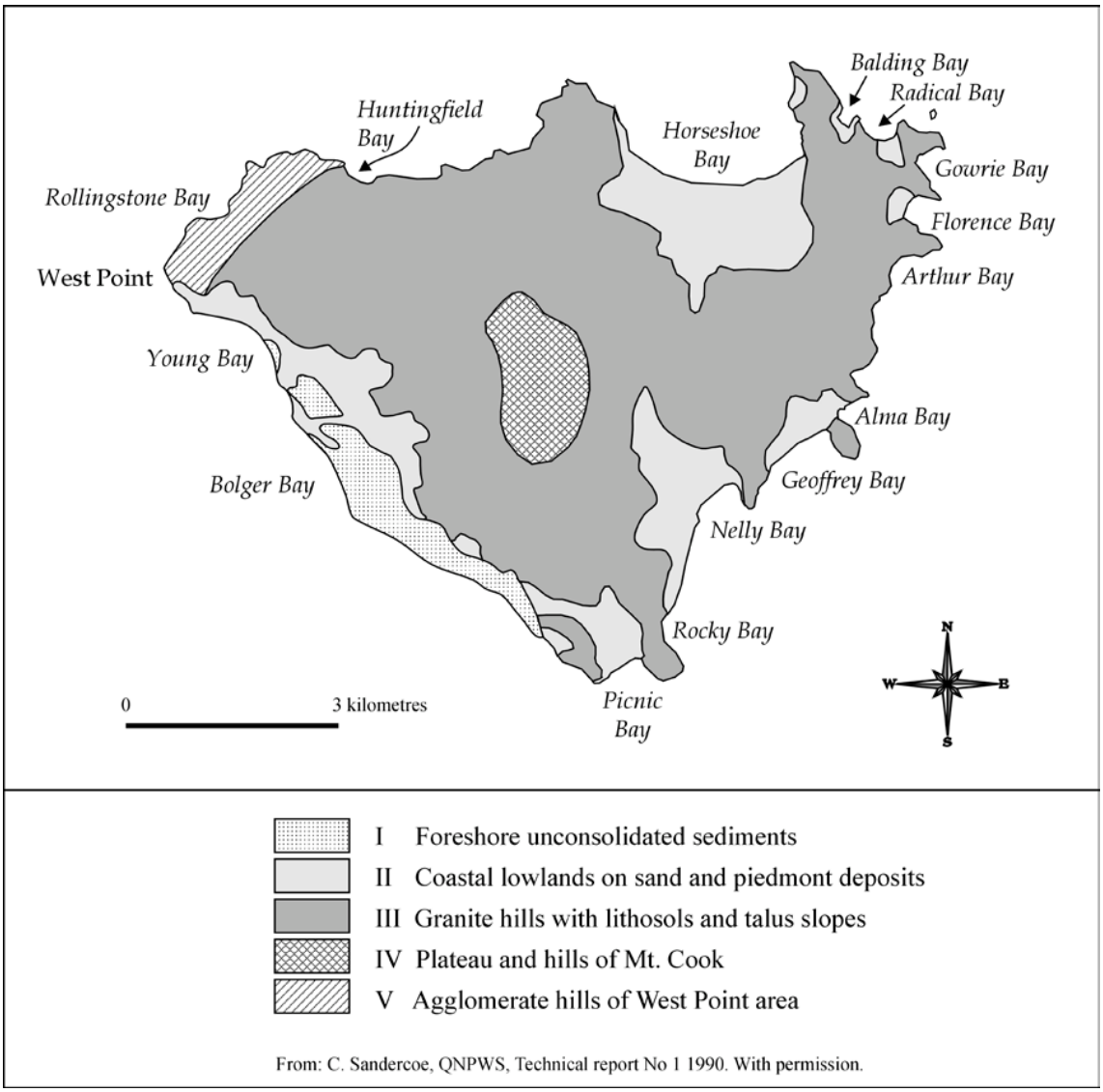
These units relate to the various landforms and hence with the underlying geology. Sandercoe (1990) recognised 23 vegetation types largely associated with the five landform divisions (Map 1). These results are summarised as follows:

- Foreshore unconsolidated sediments. Mangrove, saltmarsh and samphire units were recognized for this landform.
- Coastal lowlands on sands and piedmont deposits. Here the vegetation units range from mixed eucalypt open woodland to teatree swamp, bulkuru swamp, she-oak woodland on some of the dunes to littoral closed forest. The latter is also variously known as scrub, dry rainforest or low vine forest and good examples can be found around Florence Bay and the southern end of Nelly Bay.
- Granite hills of lithosols and talus slopes. This landform represents most of the area covered by National Park. Ten vegetation units are recognized indicating the range of habitats present. These units are: Araucaria forest; mixed low coastal forest; low vine forest amongst boulders; vine forest (closed forest or rainforest); mixed semi-deciduous woodland; mixed semi-deciduous low open woodland; mixed eucalypt woodland; Acacia shrubland; grassland $\pm$ sparse trees and shrubs and mallee brush box forest (***Lophostemon confertus*** – mallee form).
- Plateau and hills of Mt Cook. This area mostly above 300 m altitude is often cooler and moister because of more frequent cloud cover. It is in this area that patches of cabbage tree palm (***Livistona***) and forest she-oak

(***Allocasuarina***) occur as well as grass tree shrubland (***Xanthorrhoea***) on exposed ridges.

- Agglomerate hills of the West Point area. Here mixed low open scrub mingles with large boulders. Many of the species are dry season deciduous, representing semi-deciduous dry rainforest.

Map of Magnetic Island



From: C. Sandercoe, QNPWS, Technical report No 1 1990. With permission.

WHAT IS INCLUDED IN THIS BOOK?

This book is designed to introduce both visitors and residents of Magnetic Island to some of the flora of Magnetic Island, particularly those areas readily accessed by walking tracks. Species restricted to the more inaccessible areas such as around Rollingstone Bay, as well as many relatively inconspicuous species, or ones difficult to identify, e.g. grasses, have been excluded. Because the identification of grasses and sedges often require technical expertise, only the common, or prominent, species have been included in this key. Although many introduced plants have been included it is impossible to cover all those that occur in gardens. A list of all plants known to occur, or that have been collected, on the island are included as an appendix. Most garden plants are excluded from this list unless they have escaped into surrounding areas.

Many of the plants that occur on Magnetic Island are also found on the adjacent mainland wherever similar habitats exist. However, a greater diversity of plants, particularly species considered to be weeds, will be found in the Townsville environs, largely because there is a greater range of potential habitats. Some species similar to ones that occur on the mainland have been included for comparison.

HOW IS THE BOOK STRUCTURED?

There are **three points of entry** into identifying the plants in this book after you have read these introductory words!

1. Guide to Genera based on the DOMINANT flower colour. Here each genus is listed under its flower colour, following the name is a number which indicates in what group and subgroup you will locate that genus. In some cases the same genus will appear under several different colours e.g., *Melaleuca*, both cream and red forms occur, so it will be in two places and melaleuca can be found in 8C, *that is* Group 8 subgroup C.

2. Guide to Genera based on OBVIOUS fruit features, here very small dry fruits are excluded. Here genera that have fleshy or indehiscent fruits are grouped by colour and dry or fruits that are dehiscent and split open to release the seeds, are included if they are more than 1 cm long at maturity. Most dry fruits are green to brown.

3. Key to the Groups based chiefly on leaf features
Initially the species are arranged into groups using a basic key format. This key is based on obvious external features. Similar features are grouped together. For example, leaves present would be grouped with leaves absent and you choose the character or feature that best fits your specimen and follow the prompts (e.g., go to Group A). The idea is to carefully read through the alternatives and go to the group that best fits your specimen. (See below on How to Use a Biological Key). A similar format has been used within these groups to recognise subgroups whose component species may be identified by comparing the brief descriptions with the illustrations.

A number of small sketches have been included to indicate what is meant by some of the botanical terms where their use could not be avoided. Against some terms in the description you will find a small vertical arrow (↑); a corresponding arrow will be found on the illustration pointing to the position of the structure to which the term applies.

All measurements included in the descriptions have been made from mature material. Since considerable variation in size is frequently found, a range has often been given. Plants growing in a favoured habitat and not showing signs of stress will often be larger than similar plants growing under adverse conditions.

Most of the illustrations are photocopies or scans of fresh specimens unless this was impractical, usually because of size. For the same reason only 1-2 leaflets of large compound leaves have been shown. All illustrations have been reduced in size, for many a scale bar is inserted. The scale bar represents 1 cm. Habit sketches do not have an indication of scale. Where a flowering time is given it is meant only as a guide and only represents a date when a flowering specimen was collected.

SELECTING YOUR SPECIMEN

Firstly, select a representative adult specimen, then note such things as;

- The **habitat** where the plant is growing e.g., in mangroves or a salt pan.
- **Habit**, for instance, is it a tree? Trees usually have a single trunk whereas a shrub is usually multi-stemmed and shorter. However, it may be difficult to decide, in which case both alternatives should be tried.
- What is the **leaf arrangement etc.**? Are the leaves opposite one another on the stem, or alternate?
- Is there a **milky sap** present or not when a stem or leaf is broken? Note, you may have to squeeze the broken end. This milky sap is also called latex.
- Any features of the **fruit** or **flower**.
-

If you pick a specimen, please make sure that you are not in a National Park. Take no more than is really necessary and do leave the roots in the ground so that the plant may continue to live for others to enjoy.

A hand lens and a notebook will be useful, as will a camera.

HOW TO USE A BIOLOGICAL KEY?

A key is the means of unlocking information, in this case how to find out the name of a plant.
A key is usually a dichotomous key, unless it is an interactive key and these are normally based on a CD-ROM or DVD. A dichotomous key should only have 2 alternatives. These are usually referred to as a **couplet**. You must always read both alternatives of the couplet **carefully** before proceeding as directed.

NOTE: Frequently the word USUALLY is used; this is to alert the user to the fact that exceptions are known. If you are at a particular couplet in the key when a problem like this arises, always try the alternative just in case.

HOW TO USE THIS KEY?

Starting on KEY TO THE GROUPS, decide

What is the habitat? In most cases it won't matter.
What is the pattern of the veins in the leaves? A network or more or less parallel to one another or?
What is the habit of the plant? Is it a vine etc.?
Has it got a milky sap that is reasonably obvious when the stalk of the leaf (petiole) or the base of the stem is squeezed? In dry times this can be difficult. If it is present, then handle with care.

What is the nature of the leaves and how are they arranged (e.g., alternate or opposite)?

Assume that you have a specimen from a tree growing in the lowland, woodland area near a creek which has simple leaves, that arise opposite to one another, the veins form a network, or at least they are not all parallel to one another and that there is no milky sap present. A Leichhardt tree would fit this description. The keying out process at "Key to the Groups" would be:

- At couplet 1, you will select the alternative 1* which directs you to couplet 2.
- At couplet 2, you will select 2* and then go to couplet 3.
- At couplet 3, since the hypothetical plant is a tree go to couplet 4.
- There is no milky sap so go to couplet 5.
- At couplet 5 the first alternative is leaves opposite and the other (5*) is leaves alternate. The hypothetical tree has opposite leaves so proceed to **Group 5**.

NOTE: There are some small sketches included at the beginning of each key to remind you what is meant by some of these terms.

At **Group 5**, you will have another key which includes all those plants fitting the above description, but this key now includes **letters** as well as numerals on the right hand side. These represent the **subgroups**. Thus the hypothetical tree would be found under **Group 5.D or Group 5.E** depending on whether the leaves are hairy or not. Since the leaves of the Leichhardt Tree are hairy, it will be in **Group 5.D.** Another example would be the Townsville wattle (***Acacia leptostachya***), a shrub, which occurs on the hillslopes often on gravelly soil, leaves (technically phyllodes) have pseudoparallel veins, but it is woody and the floral parts are not in multiples of 3. The plant lacks milky sap, the leaves alternate with one another along the stem (in fact they are in a spiral arrangement and they are not divided). Thus the steps would be "Couplet 1, go to 2, select 2* and go to 3, select 3* and go to 4. Select 4* and go to 5, select 5* and go to 6 and select 6* which takes you to 7. The plant is usually well over 1 m tall so try **Group 8**, but first make sure your plant is not just a small one growing up to maturity. In fact you will find it in **Group 8.E**.

In each of these subgroups a number of species are listed. Read each brief description and compare the illustration with your specimen. If it doesn't match then reverse your steps in case you have selected the wrong alternative. Unfortunately in trying to keep the key as simple as possible there will be some overlap in the alternatives at times, particularly where height or leaf length has been used as a separating character. (e.g., **Group 8.N** and **8.O)** If in doubt check out both. If you are confident you have selected the right alternatives, you might have a specimen that doesn't conform.

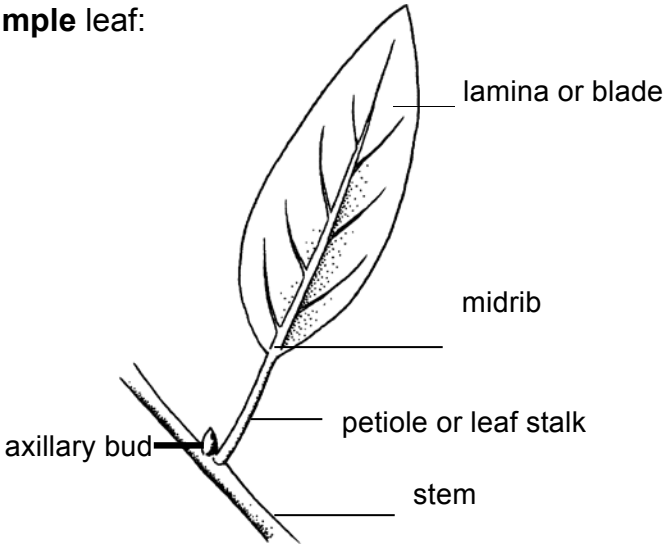
NOTE: if you cannot find your plant in here it may not have been included.

SOME BASIC TERMS:

LEAF

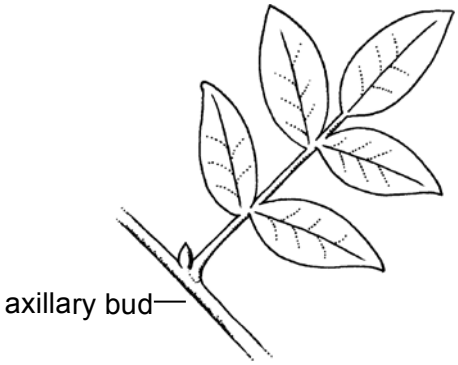
A **simple** leaf is one that is undivided so that the leaf blade does not separate into separate leaflets. There will be a bud, maybe small, in the axil between the stem and the leaf stalk. An example is a gum leaf or a fig leaf.

A **simple** leaf:

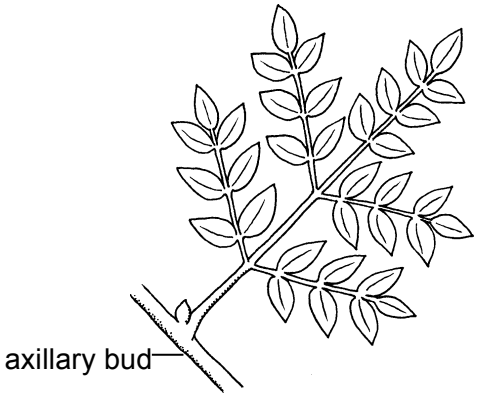


A **compound** leaf for the purposes of this book, is a leaf with 2 or more distinct leaflets. These leaflets do not have a bud in their axils. The bud is adjacent to the stem and the common stalk or rachis. Sometimes a terminal leaflet is present. At other times it may be absent or represented by a projection or spine. Some examples of compound leaves are the African Tulip Tree, Poinciana, and the Rain Tree.

A **pinnate** leaf is a compound leaf, which has a single set of leaflets, arranged on opposing sides of the rachis e.g., African Tulip Tree. A **bipinnate** leaf is one where the first set of leaflets has been divided again, i.e., the leaf is twice divided, as in the Jacaranda and the Poinciana.



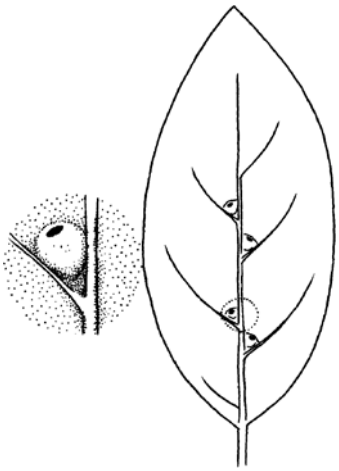
A **pinnate** leaf



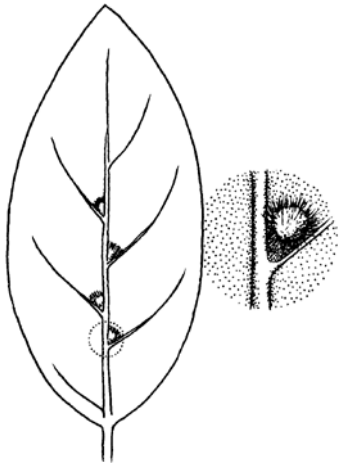
A **bipinnate** leaf

Oil glands usually appear as small translucent dots when the leaf is held to the light and/or viewed with a hand lens. They secrete oil and the ones that are referred to in the key will be those that produce an aromatic or distinct smell when crushed as in a leaf of a eucalypt. Suggest you practice with a lemon leaf, a gum leaf and one from a bottlebrush or paperbark tree.

Domatia are structures in the axil of the midrib and some lateral veins, occasionally elsewhere. Mites often live in them. They take two basic forms: small hooded structures or flaps of tissue, quite variable is size and shape, and hair tufts, formed by a cluster of hairs.



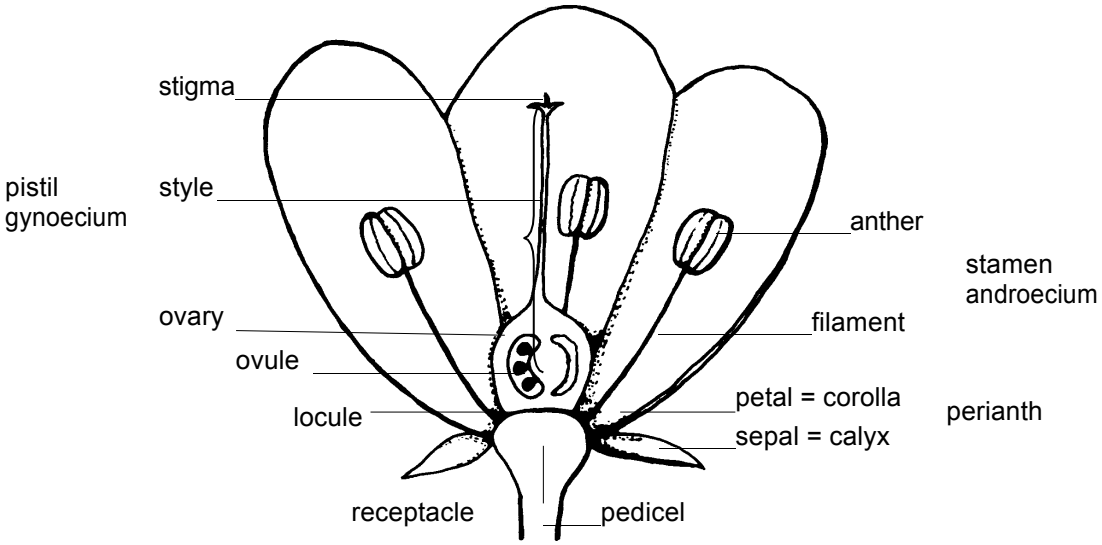
Domatia – hooded structures



Domatia – clusters of hairs

Extra-floral nectaries or glands are structures that produce substances, may be external on the organ or may be internal. Various terms are used, and often interchangeably. Pellucid dots or streaks are within the tissues and they produce a variety of substances, the ones referred to in this book as 'oil glands' are those which produce a distinct smell, recognizable as just not plant! Extra-floral nectaries, to distinguish them from those in the flowers, are on the outside surface of the plant. Unfortunately these are also often referred to as glands.

FLOWERS and FRUITS
Longitudinal section of a regular flower:



FLOWER
Regular or symmetrical flowers are flowers which can be cut in half in more than one way to get two equal halves as in a Hibiscus.

Irregular or asymmetrical flowers are flowers which can only be cut in one direction to get two equal halves as in a pea-flower.
Perianth. This is the collective term used for the sepals/calyx and petals/corolla, particularly when you can't distinguish between sepals and petals. Individual segments maybe free from one another or variously fused.
Stamen. The male part of the flower, each typically consists of a filament and an anther which contains the pollen.
Pistil. The female part of the flower consisting of the ovary at the base which is composed of carpels and develops into the fruit, the ovules when fertilised become the seeds. Attached to the top of the ovary is the style and the stigma where the pollen is received.

FRUIT
Fruit are basically either fleshy and indehiscent as in an apple or dry and dehiscent as in a pea pod. Many types. Most common are:
Fleshy:

Berry – like a tomato where there is no hard central stone;
Drupe – like an apricot, where there is a hard central stone surrounding the seed.

Dry:

Fruit is normally dehiscent and break open to release the seeds.
There are exceptions. A capsule is the most common as in a Hibiscus; Legume or pod, splits along 2 sides as in a pea or wattle; Follicle splits on one side as in Grevillea.

NAMES

In this publication, the Latin Name, is followed by in brackets – the Common Name(s), if there is one, and then the Family Name.

Many native plants do not have a common name or if there is one it is only of local use. In contrast others have a variety of common names. For example in the Townsville area some of the common names for ***Acacia aulacocarpa*** (**Group 8E**), are 'Brown Salwood', 'Black Wattle', 'Hickory Wattle', 'Golden-flowered Salwood' and 'Brush Ironbark'. There are no rules as to which common name is preferred.

Where an asterisk (*) has been placed after the brackets, this indicates that the plant has been introduced at some time in the past. Many of these plants have escaped from the garden and have become weeds.

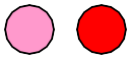
The Latin Name or binomial is usually the one currently in use by the Queensland Herbarium. However names do change as more knowledge is gained, but as not all botanist agree (we won't go into that discussion) you will find listed an "alternate name" or "/" between family names, which again indicates that there are alternatives. Where a name has changed then the old name is preceded by 'formerly', this name now becomes what is known as a synonym. More details can be found in the Australian Plant Name Index (APNI). The meaning of the names has been based chiefly on Huxley *et al*. (1999). More details are given in the references.

Although photographs have only occasionally been included, photographs of some of the species and certainly of representatives of the families can be found in the Image Gallery on the Centre for Plant Biodiversity Research website.
http://www.cpbr.gov.au/photo/index.html

1. Guide to genera based on DOMINANT Flower Colour.

Numbers such as 7A after the Name of the Genus indicates that the genus is in Group 7, Subgroup A.

Flowers Pink to Red



Shrubs and Trees:

Brachychiton 8G, *Euroschinus* 6F, *Hibiscus* 8F, *Indigofera* 6B, *Jatropha* 4A, *Lantana* 5F, *Melaleuca* 8C, *Pongamia* 6B, *Nerium* 4C, *Schefflera/Heptapleurum* 6H, *Tephrosia* 6B, *Urena* 7B, *Xylocarpus* 1H.

Herbs and Epiphytes. Plants if woody generally less than 1 m tall:

Abelmoschus 7B, *Amyema* 3A, *Anisomeles* 5B, *Aphyllodium* 6B, *Boerhavia* 5B, *Catharanthus* 4B, *Desmodium* 6B, *Drosera* 7E, *Eustrephus* 2B, *Haemodorum* 2B, *Indigofera* 6B, 7D, *Lysiana* 3A, *Macroptilium* 3F, *Murdannia* 2B, *Portulaca* 7D, *Pseudoerantheum* 5B, *Sesuvium* 1C, *Stachytarpheta* 5B, *Tephrosia* 6B, *Trianthema* 1C, *Urena* 7B.

Vines:

Antigonon 3J, *Canavalia* 3F, *Derris* 3G, *Glycine* 3F, *Ipomoea* 3I, 3K, *Macroptilium* 3F, *Passiflora* 3K, *Rubus* 8G.

Flowers Blue to Mauve to Purple

Shrubs and Trees:

Anisomeles 5B, *Brucea* 6G, *Callicarpa* 5F, *Exocarpos* 8I, *Meiogyne* 8N, *Hypoestes* 5B, *Indigofera* 6B, *Melastoma* 5H, *Melia* 6G, *Memecyclon* 5H, *Mesosphaerum* 5B, *Pongamia* 6B, *Solanum* 7E, *Tephrosia* 6B, *Vitex* 5A, 5F.

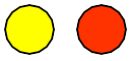
Herbs. Plants if woody then generally less than 1 m tall:

Afrohybanthus 7D, *Ageratum* 5B, *Catharanthus* 4B, *Commelina* 2B, *Cyantillium* 7E, *Dianella* 2B, *Helicteres* 7C, *Heliotropium* 7C, *Lomandra* 2B, *Murdannia* 2B, *Nymphaea* 7C, *Pseuderantheum* 5B, *Rostellularia* 5B, *Sesuvium* 1C, *Spermacoce* 5B, *Stachytarpheta* 5B, *Striga* 7D, *Trianthema* 1C,*Trichodesma* 5B, *Wahlenbergia* 7D.

Vines:

Abrus 3G, *Aristolochia* 3J, *Canavalia* 3F, *Clitoria* 3G, *Cryptostegia* 3D, *Derris* 3G, *Desmodium* 3F, *Evolvulus* 7D, *Ipomoea* 3K, *Pandorea* 3H, *Passiflora* 3K.

Flowers Yellow to Orange



Shrubs and Trees:

Acacia 6C, 8E, *Avicennia* 1D, *Caesalpinia* 6B, *Cascabela* 4C, *Cassia* 6D, *Chamaechrista* 6D, *Cochlospermum* 8F, *Corchorus* 7A, *Grewia* 7C, *Hibiscus* 8P, 8S, *Huberantha* 8N, *Labichea* 6D, *Lantana* 5F, *Melhania* 7A, *Melodorum* 8N, *Nauclea* 5C, *Nerium* 4C, *Persoonia* 8I. *Pleiogynium* 6G, *Senna* 6D, *Sida* 7A, *Sophora* 6A, *Tamarindus* 6D, *Tecoma* 5A, *Thespesia* 8P,*Triumfetta* 7A, *Waltheria* 7A.

Herbs and Epiphytes. Plants if woody then generally less than 1 m tall.

Afrohybanthus 7D, *Acmella* 5B, *Chamaecrista* 6D, *Cleome* 6D, *Crotalaria* 6A, 7A, *Dendrophthoe* 3R, *Coronidium* 7A, *Ludwigia* 7A, *Tithonia* 8F,*Tribulus* 5A.

Vines: *Cajanus* 6A, *Cissus* 3J, *Hypericum* 5B, *Mucuna* 3F, *Rhynchosia* 3F, *Spagneticola* 5B, *Vigna* 3G.

Flowers White to Cream, maybe a greenish tinge present.

Shrubs and Trees:

Acacia 8E, *Acronychia* 5G, *Aegialitis* 1G, *Aegiceras* 1G, *Aidia* 5E, *Alphitonia* 8L, *Alyxia* 4C, *Antidesma* 8O, *Barringtonia* 1G, *Bruguiera* 1E, *Bursaria* 8S, *Capparis* 8N, *Carallia* 5E, *Carissa* 4C, *Ceriops* 1E, *Chionanthus* 5A, *Clerodendrum* 5F, *Cordia* 8K, *Corymbia* 8A, 8B, *Cryptocarya* 8K, *Cyclophyllum* 5E, *Diospyros* 8O, *Emmenosperma* 5H, *Eucalyptus* 8A, 8B, *Eugenia* 5G, *Geijera* 5D, *Glossocarya* 5F, *Gossia* 5G, *Grevillea* 8I, *Grewia* 7D, *Gyrocarpus* 8G, *Hibiscus* 8F, 8S, *Ixora* 5E, *Larsenaikia* 5D, *Lophostemon* 8D, *Lumnitzera* 1G, *Denhamia* 8S, *Melaleuca* 8C, *Mimusops* 4D, *Morinda* 5D, *Myoporum* 8O, *Nerium* 4C, *Osbornea* 1D, *Pavetta* 5E, *Pittosporum* 8O, *Coelospermum* 5E, *Premna* 5F, *Psychotria* 5E, *Psydrax* 5E, *Scaevola* 8K, *Scolopia* 8K, *Sersalisia* 8L, *Sonneratia* 1E, *Tabernaemontana* 4C, *Tephrosia* 6B,*Terminalia* 8M, *Timonius* 5D, *Turraea* 8R.

Herbs: and Epiphytes

Abelmoschus 7B, *Alternanthera* 5C, *Catharanthus* 4B, *Coldenia* 7B, *Crinum* 2B, *Drosera* 7E, *Glinus* 5C, *Gomphrena* 5C, *Grewia* 7C, *Helicteres* 7C, *Heliotropium* 7C, *Lomandra* 2B, *Lysiana* 3A, *Nymphaea* 7C, *Nymphoides* 7E, *Oldenlandia* 5C, *Persicaria* 7E, *Pimelea* 5C,*Proiphys* 2B, *Pseuderantheum* 5B, *Pterocaulon* 7C, *Richardia* 5C,*Scoparia* 5C, *Styphelia* 7D, *Tacca* 7B, *Tridax* 5C, X*anthorrhoea* 2A.

Vines:

Abelmoschus 7B, *Abrus* 3G, *Bonamia* 3J, *Cyanchum 3C,*3D, *Diplocyclos* 3K, *Gymnanthera* 3D, *Hoya* 3D, *Ichnocarpus* 3D, *Jasminum* 3H, *Melodinus* 3D, *Merremia* 3I, *Pandorea* 3H, *Parsonsia* 3D, *Smilax* 3J, *Tinospora* 3J.

Flowers Inconspicuous usually about 2-3 mm diameter, usually greenish to dull yellow.

Shrubs and Trees:

Alchornea 8S, *Allocasuarina* 8H, *Antidesma* 8O, *Araucaria* 8H, *Aphananthe* 8K, *Breynia* 8O, *Bridelia* 8O, *Carallia* 5E, *Casuarina* 8H, *Celtis* 8K, *Colubrina* 8K, *Croton* 8P, *Cryptocarya* 8K, *Cynometra* 1H, *Dendrocnide* 8K, *Dodonaea* 8S, *Drypetes* 8O, *Excoecaria* 1F, *Ficus* 4A, *Flueggea* 8J, *Glochidion* 8Q, *Harpullia* 6F, *Homalanthus* 8K, *Macaranga* 8P, *Mallotus* 8P, *Mangifera* 8N, *Neolitsea* 8K, *Petalostigma* 8S, *Phyllanthus* 8Q, *Pipturus* 8J, *Planchonella* 4A, *Pleiogynium* 6G, *Sterculia* 8P, *Trema* 8K.

Herbs and Epiphytes:

Alternanthera 5C, *Amaranthus* 7B, *Phyllanthus* 7D, 7E, *Salsola* 1C, *Suaeda* 1C, *Tecticornia* 1A, *Viscum* 3A.

Vines:

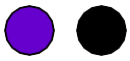
Cassytha 3E, *Causonis* 3I, *Cissus* 3J, *Clematicissus* 3J, *Dioscorea* 3J, *Elaeodendrum* 5H, *Pachygone* 3J, *Trophis* 3J.

2. Guide to genera based on OBVIOUS Fruit Features.

A. FLESHY FRUIT

This guide is Based on MATURE colour of the fleshy fruit OR if Dry then they do not split open i.e., indehiscent or very slowly dehiscent. Genera may appear in more than one group.
Numbers such as 7A after the name of the genus indicates that the genus occurs in Group 7 subgroup A.

Purple, Dark Purple to Black



Shrubs and Trees: (P) = usually a definite **Purple**

Acronychia 5G (P), *Alphitonia* 8L, *Alyxia* 4C, *Antidesma* 8O, *Aphananthe* 8K, *Bridelia* 8O, *Brucea* 6G, *Callicarpa* 5F (P), *Carallia* 5E, *Carissa* 4C, *Cascabela* 4C, *Celtis* 8K, *Clausena* 6E (P), *Cryptocarya* 8K, *Dendrocnide* 8K (P), *Euroschinus* 6F, *Ficus* 4A, *Garuga* 6G, *Gossia* 5G, *Ixora* 5E, *Jasminum* 3H, *Lantana* 5F, *Livistona* 2A, *Melastoma* 5H, *Memecylon* 5H, *Myoporum* 8O, *Neolitsea* 8K, *Pavetta* 5E, *Planchonella* 4A (P), *Pleiogynium* 6G, *Pogonolobus* 5E, *Premna* 5F, *Psydrax* 5E, *Schefflera* 6H (P), *Seralisia* 8L, *Terminalia* 8M, *Trema* 8K, *Vitex* 5A, 5F.

Vines:

Causonis 3I, *Cissus* 3J, *Clematicissus* 3I, *Elaeodendron* 5H, *Passiflora* 3K, *Smilax* 3J, *Tetrastigma* 3I,

Blue

Shrubs and Trees:

Canarium 6G, *Chionanthus* 5H, *Melastoma* 5H, *Myoporum* 8O, *Terminalia* 8M.

Herbs:

Dianella 2B.

Vines:

Pachygone 3J.

Pink to Red

Shrubs and Trees:

Aglaia 6G, *Aidia* 5E, *Antidesma* 8O, *Archontophoenix* 2A, *Breynia* 8O, *Carallia* 5E, *Cyclophyllum* 5E, *Drypetes* 8O, *Eugenia* 5G, *Ficus* 4A, *Glycosmis* 6E, *Heptapleurum* 6H, *Huberantha* 8N, *Micromelum* 6E, *Mimusops* 4A, *Murraya* 6F, *Myoporum* 8O, *Neolitsea* 8K, *Ochrosia* 4C, *Rubus* 8F, *Scolopia* 8K, *Trophis* 3J.

Herbs and Epiphytes:

Dendrophthoe 3B, *Viscum* 3A.

Vines;

Cassytha 3E, *Melodinus* 3D, *Pleogyne* 3J, *Stephania* 3J, *Tinospora* 3J.

Yellow, Greenish-yellow, Orange

Shrubs and Trees:

Aglaia 6G, *Cordia* 8K, *Cupaniopsis* 6F, *Diospyros* 8O, *Drypetes* 8O, *Exocarpos* 8I, *Ficus* 4A, *Maclura* 4A, *Meiogyne* 8N, *Mallotus* 8P, *Melia* 6G, *Melodorum* 8N, *Mimusops* 4A, *Nauclea* 5D, *Persoonia* 8I, *Solanum* 7E, 8F, *Styphelia* 7D, *Tabernaemontana* 4C.

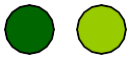
Herbs and Epiphytes:

Amyema 3A, *Dendrophthoe* 3B.

Vines:

Passiflora 3K.

Green, maybe with brownish or yellowish tinge (includes Mangrove propagules)



Shrubs and Trees

Avicennia 1D, *Bruguiera* 1E, *Capparis* 8N, *Ceriops* 1E, *Colubrina* 8K, *Ficus* 4A, *Larsenaikia* 5D, *Lumnitzera* 1G, *Morinda* 5D, *Osbornea* 1D, *Persoonia* 8I, *Planchonia* 8N, *Psychotria* 5E, *Rhizophora* 1E, *Solanum* 7E, 8F, *Sonneratia* 1E, *Styphelia* 7D, *Timonius* 5D.

Herbs:

Tacca 7B.

White

Shrubs and Trees:

Acronychia 5G, *Flueggea* 8J, *Pipturus* 8J, *Scaevola* 8J.

Epiphyte:

Lysiana 3A.

Brown

Trees and Shrubs:

Aegialitis 1G, *Aegiceras* 1G, *Barringtonia* 1G, *Cynometra* 1H, *Grewia* 7C, *Nauclea* 5D,

Tamarindus 6D, *Thespesia* 8P.

B. DRY FRUIT

Genera included here have dry fruit which split open to release the seeds and are more than 1 cm long and/or wide. A few others have crept in!

Pods or similar, i.e., bean-like

Shrubs and Trees:

Acacia 6C, 8E, *Albizia* 8C, *Bauhinia* 6D, *Brachychiton* 8G, *Cassia* 6D, *Hypoestes* 5B, *Indigofera* 6B, *Labichea* 6D, *Lysiphyllum* 6D,

Nerium 4C, *Paraserianthes* 6C, *Pongamia* 6B, *Samanea* 6C, *Senna* 6D, *Sesbania* 6A, *Sophora* 6A, *Sterculia* 8P, *Tamarindus* 6D, *Tecoma* 5A, *Tephrosia* 6B, *Vachellia* 6C.

Herbs:

Aphyllodium 6B, *Cleome* 6H, *Corchorus* 7A, *Crotalaria* 6A, *Hypoestes* 5B, *Indigofera* 6B, *Pseuderanthemum* 5B, *Tephrosia* 6B.

Vines:

Chief families Apocynaceae, Fabaceae. Genera: *Abrus* 3G, *Cajanus* 6A, *Canavalia* 3F, *Clitoria* 3G, *Cryptostegia* 3D, *Cynanchum 3C,*3D, *Derris* 3G, *Desmodium* 3F, *Glycine* 3F, *Gymnanthera* 3D, *Hoya* 3D, *Ichnocarpus* 3D, *Macroptilium* 3F, *Mucuna* 3F, *Pandorea* 3H, *Parsonsia* 3D, *Rhynchosia* 3F, *Vigna* 3G.

Chiefly capsules i.e., often rounded as in Hibiscus

Shrubs and Trees:

Abutilon 8P, *Alectryon* 6G, *Allocasuarina* 8H, *Arytera* 6F, *Bursaria* 8S, *Casuarina* 8H, *Clerodendrum* 5F, *Cochlospermum* 8G, *Corymbia* 8A, 8B, *Croton* 8P, *Dodonaea* 8S, *Eucalyptus* 8A, 8B, *Geijera* 8D, *Glochidion* 8Q, *Grevillea* 8I, *Gyrocarpus* 8G, *Harpullia* 6F, *Hibiscus* 8F, 8P, 8S, *Homalanthus* 8K, *Jatropha* 4A, *Lophostemon* 8D, *Macaranga* 8P, *Denhamia* 8S, *Petalostigma* 8S, *Pittosporum* 8O, *Turraea* 8R.

Herbs:

Abelmoschus 7B, *Crinum* 2B, *Grewia* 7C, *Salsola* 1C.

Vines:

Bonamia 3J, *Dioscorea* 3J, *Ipomoea* 3I, *Merremia/Distimake* 3I.

Insignificant/inconspicuous

The rest such as the grasses and daisies and most herbs.

3. KEY TO THE GROUPS based chiefly on leaf features.

					
A. parallel veins	B. reticulate veins	C. leaves opposite	D. leaves alternate	E. compound leaf	F. simple leaf

1 Plants found chiefly in saline habitats such as mangroves or salt pans — go to **Group 1**

1* Plants found in normally non-saline habitats, i.e., usually above the limits of high tide — go to 2

2 Leaves with numerous parallel veins (see sketch A); mostly herbs, Sometimes epiphytic, **if** veins obscure, then plant is herbaceous and often epiphytic, **if woody** then veins obvious and floral parts in multiples of three, e.g., 3 sepals, 3 petals and 3 stamens — go to **Group 2** (all monocots)

2* Leaves with reticulate venation (see sketch B - a network), **OR** if parallel, then there are 5 or fewer prominent longitudinal veins; connecting veins normally visible **OR** leafless, apparently leafless **OR** veins obscure and plant is a tree — go to 3

3 Vines, mistletoes and other epiphytic plants — go to **Group 3**

3* Herbs, trees or shrubs but not epiphytic or climbing or twining — go to 4

4 Plants release a whitish or milky sap – latex (may need to squeeze the broken end – **Caution**) — go to **Group 4**

4* Plants without milky sap — go to 5

5 Leaves opposite (see sketch C) — go to **Group 5**

5* Leaves alternately arranged (D) or difficult to determine — go to 6

6 Leaves compound (E), i.e., divided into separate leaflets — go to **Group 6**

6* Leaves simple (F) sometimes much reduced or absent; margins may be lobed, **or** even deeply dissected so as to almost be separate — go to 7

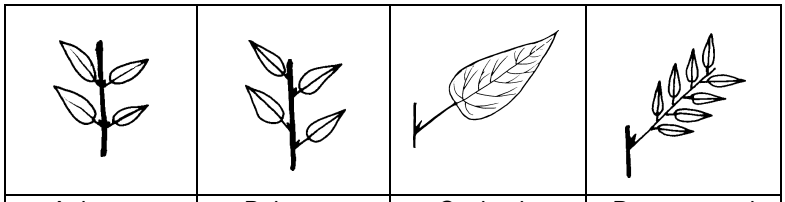
7 Herbs or subshrubs, usually less than 1 m tall — go to **Group 7**

7* Shrubs or trees usually more than 1.5 m tall — go to **Group 8**

NOTE: In case you have a plant with borderline height, check through both groups to try and find something that fits.

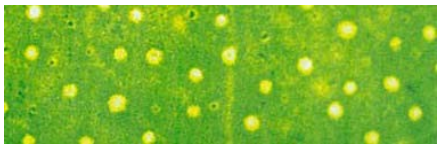
KEY TO GROUP 1

Mangroves and plants of saline habitats, i.e., regularly inundated by king tides.



A. leaves opposite	B. leaves alternate	C. simple leaf	D. compound leaf

1	Mature plants less than 60 cm high, often prostrate and succulent	go to 2
1*	Mature plants greater than 60 cm high, shrubs or trees	go to 4
2	Plants without obvious leaves, succulent (samphires)	go to **Group 1.A**
2*	Plants with obvious leaves, sometimes succulent	go to 3
3	Grass, non-succulent, leaves narrow, margins rolled inwards	go to **Group 1.B**
3*	Plants with succulent leaves, may be flattened, cylindrical or almost so	go to **Group 1.C**
4	Trees or shrubs with opposite leaves (see sketch A)	go to 5
4*	Trees or shrubs with alternate leaves (B)	go to 6
5	Leaves with oil glands visible when held to the light and an aromatic smell when crushed **or** undersurface whitish	go to **Group 1.D**



Large oil glands as seen with a good hand lens

5*	Leaves without oil glands or a whitish undersurface, but prop roots, knee roots or buttresses may be present	go to **Group 1.E**
6	Plants with copious milky sap present when parts, such as stems and leaves are broken (**CAUTION**)	go to **Group 1.F**
6*	Plants lacking milky sap when stems or leaves broken	go to 7
7	Shrubs or trees with simple leaves (C)	go to **Group 1.G**
7*	Trees with compound leaves (D)	go to **Group 1.H**

GROUP 1.A Plants succulent with no obvious leaves (samphires).

Tecticornia halocnemoides subsp**. t*enuis*** (Also treated as ***Halosarcia*** – Chenopodiaceae)

Tecticornia is derived from ***tecti*** – covering, and ***cornu*** – horn, referring to the bracts which cover the flower.

Shrub to 50 cm high with slender branchlets, segments narrowly barrel-shaped to 5 mm long, 2 mm wide. Flowers in slender spikes.

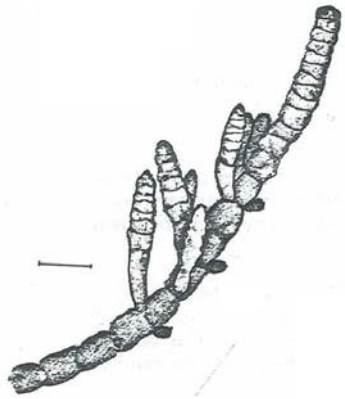
Tecticornia indica subsp. ***indica*** (Also treated as ***Halosarcia*** – Chenopodiacae)

Decumbent or prostrate plant, segments cylindrical to barrel-shaped, 10 mm long x 4-6 mm wide, often becoming corky.

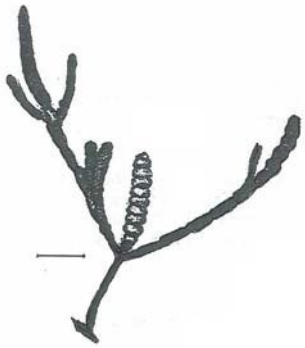
Tecticornia indica subsp. ***julacea*** (Also treated as ***Halosarcia*** – Chenopodiaceae)

Decumbent plant with slender branchlets, segments narrowly cylindrical, 4-10 mm long x 2-3 mm wide.

T. halocnemoides subsp. *tenuis*.



T. indica subsp. *indica*



T. indica subsp. *julacea*

Tecticornia australasica (Chenopodiaceae)

Decumbent or erect plant to 40 cm, segments narrowly cylindrical. Flowering spike usually terminal, up to 7 mm wide, bracts free.

GROUP 1.B Grass, non-succulent, leaves narrow and margins rolled inwards.

Sporobolus virginicus (Saltwater Couch, Sand Couch – Poaceae)

Sporobolus, from the Greek ***sporo*** – seed, and ***bolos*** – throwing, referring to the seed, which is easily shed.

Commonly found in mangrove and saltmarsh habitats. The leaves are narrow and stiff; the inflorescence is a narrow spike.

T. australasica

S. virginicus

GROUP 1.C Plants with succulent leaves, which may be flattened, cylindrical or almost so.

Suaeda arbusculoides (Seablite – Chenopodiaceae)

Suaeda from the Arabic word ***suwaida***.

This erect herb, to 1 m high, has narrow elliptical leaves to 2.5 cm long that are somewhat flattened at the apex. The stem has a zig-zag appearance. Seeds are 2-4 mm diameter, ***Suaeda australis*** has linear, semi-terete leaves to 5.5 cm long; seeds are 1 mm diameter.

Salsola australis (Roly-poly, Prickly Saltwort – Chenopodiaceae)*

Salsola was derived from the Latin ***salsus*** meaning salty.

An erect, succulent shrub to about 60 cm high with semi-cylindrical leaves that end in a short needle-like point. Leaves very variable in size. Fruits surrounded by membranous, horizontal wings formed from the perianth. Colour of the plant varies from green to red. Old plants break off and blow/roll along the ground, hence the common name. The fruits are dropped as the plants blow around.

Sesuvium portulacastrum (Sea Purslane – Aizoaceae)

Sesuvium, named by Linnaeus after the Gallic tribe, the "Sesuvii".

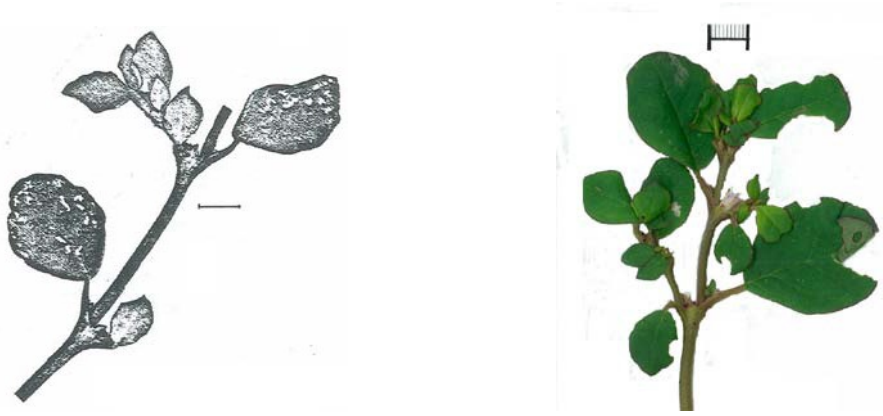
A procumbent herb rooting at the nodes. Leaves opposite, narrow with bases clasping the stem, edible. Flowers usually solitary, **pink to purple** to 1 cm diameter. Fruit a capsule to 6 mm long; numerous black seeds.

S. arbusculoides *S. australis* *S. portulacastrum*

Trianthema portulacastrum (Pigweed – Aizoaceae)

Trianthema, from Greek ***treis*** – three, and ***anthos*** – flower, since the flowers are often in groups of three.

A procumbent herb with opposite leaves and sheathing leaf bases. These pairs of broadly obovate leaves are unequal in size. Flowers **pink to purple**, usually solitary in the axils, 10-25 stamens present per flower. ***Trianthema triquetra*** has narrower leaves and the flowers form clusters in the axils and there are only 5 stamens per flower.



T. portulacastrum

GROUP 1.D Leaves with oil glands visible when held to the light or undersurface whitish.

Osbornea octodonta (Myrtle Mangrove – Myrtaceae)

Osbornea, named by Ferdinand von Mueller after the chemist John Osborne.

A shrub with stringy, fibrous bark on the trunk, which is often multi-stemmed. Leaves are opposite, oil glands are present, eucalyptus smell when crushed; leaf apex rounded or with a notch, petiole and adjacent midrib are often reddish. Flowers are pale-coloured and hairy, calyx lobes 8, **white**, petals absent, stamens numerous. Flowers in summer. Fruit a greenish berry to 10 mm long, small hairs present.

Avicennia marina subsp. ***eucalyptifolia*** (Eucalypt Mangrove – Acanthaceae)

Avicennia, named after the Persian physician and philosopher Ibn-Sina or Avicennia.

This species has smooth pale green to mottled bark; numerous thin pencil-like pneumatophores or aerial roots, protrude through the mud. The leaves are opposite, narrowly lanceolate to lanceolate usually with a distinct yellowish tinge. Undersurface appear white or silvery, salt glands present on both surfaces. The **yellow to white** flowers are clustered in the axils, the style extends above the top of the anthers or close to the top; fruit compressed, greenish-yellow, cotyledons folded. A tropical subspecies it extends down the eastern Australian coast about as far as Mackay. Subspecies ***australasica*** (Grey or White Mangrove) has ovate to lanceolate leaves and the style only reaches to the middle of the anthers. This subspecies is common in southern Australia extending north to the Rockhampton area. (Duke, 2006)

O. octodonta

A. marina subsp. *eucalyptifolia*

GROUP 1.E Leaves without oil glands or a whitish undersurface.

Ceriops tagal (Yellow or Spurred Mangrove – Rhizophoraceae)

Ceriops, from the Greek ***ceras*** – horn, and – ***opsis*** appearance, i.e., horn-like, referring to the appearance of the fruit.

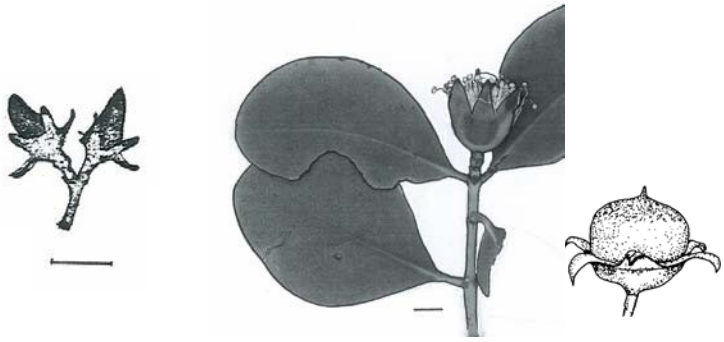
This shrub has flaky bark on the buttressed or flanged trunk. The leathery leaves are yellowish green. The 5-6 recurved sepals resemble spurs, petals **white**. Propagules ribbed in ***Ceriops tagal***, smooth in ***Ceriops australis***. Flowering June.

Sonneratia alba (White-flowered Apple Mangrove, Pornupan – Lythraceae formerly in Sonneratiaceae)

Sonneratia was named for the 18th Century French explorer and naturalist, Pierre Sonnerat.

This plant grows from 3-20 m tall and has thick peg-like roots or pneumatophores which poke up through the mud. Leaves opposite, slightly reflexed at the tip, apex acute to obtuse. Flowers large with numerous long **white** stamens followed by a cupular fruit more than 2 cm diameter, greenish, sepals persistent. Flowers may be present throughout the year, but chiefly winter.

C. tagal



S. alba

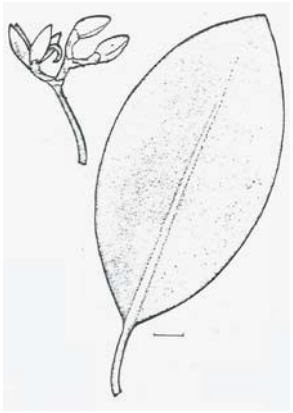
Rhizophora stylosa (Red Mangrove – Rhizophoraceae)

Rhizophora, from the Greek ***rhiza*** – root, and ***phora*** – bearing, referring to the prop roots.

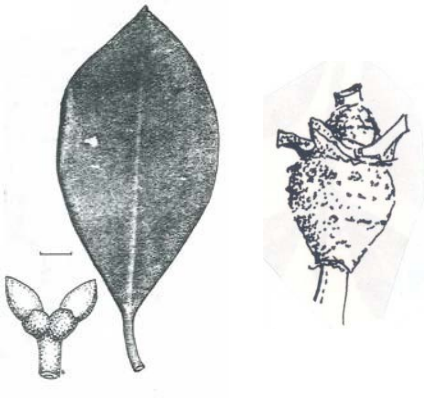
This small tree is readily distinguished by the reddish-brown spots or glands that are commonly found on the lower surface of the leaf. Prop roots present, bark reddish to light grey. Inflorescence branched; sepals 4, petals 4, **white**, with hairs on the margins, style 4-6 mm long; propagules to 65 cm long. Flowering February to May.

Rhizophora apiculata (Tall-stilted or Corky-stilt Mangrove – Rhizophoraceae)

A shrub or small tree with prop roots, very dark bark, and glossy green, leathery leaves. Flowers paired with corky brown bracts below; sepals 4, petals 4 **cream**, hairs absent from margin; style very short; propagules to 37 cm long. Flowers chiefly in autumn. ***Rhizophora mucronata*** is a similar species but the leaves are much larger and the inflorescence is branched.



R. stylosa

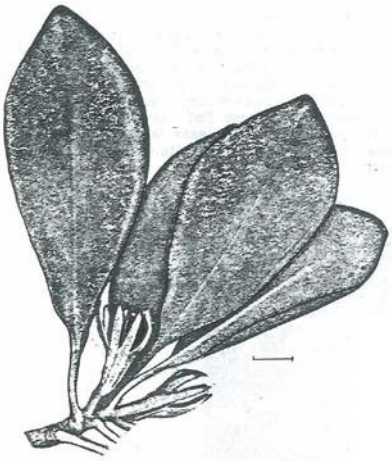


R. apiculata

Bruguiera exaristata (Small-leafed Orange Mangrove – Rhizophoraceae)
Bruguiera is named after the French explorer and botanist, J.G. Bruguieres (1750–1799). This genus is distinguished by the "knee-like" pneumatophores and the calyx, which has from 6-14 parts depending on the species. ***Bruguiera exaristata*** has 8-10 **yellowish** sepals and petals, propagule somewhat ribbed to 11 cm long. Flowering occurs in spring. ***Bruguiera gymnorhiza*** (Large-leafed Orange Mangrove) has 12-14 **reddish** sepals but some specimens with 9 only may occur, petals pale **brown to orange**. Propagule ribbed, to 25 cm long.

GROUP 1.F Plants with copious milky sap.

Excoecaria agallocha (Milky Mangrove, Blind-Your-Eye – Euphorbiaceae, **CAUTION**)
Excoecaria is from the Latin ***excaecare*** – to blind, referring to the toxic nature of the latex. This tree is readily recognized by the copious white latex, which may blister the skin or cause temporary blindness if it gets into the eye. There are two small glands or nectaries, at the base of the leaf blade (↑), as well, there are usually a few old red leaves present. The trunk is covered with dark grey, corky bark with numerous lenticels. Plant may become deciduous when stressed. Flowers with 2-5 **green to yellow** sepals, petals absent. Flowering summer. Fruit a 3-lobed brown capsule.



B. exaristata

E. agallocha

GROUP 1.G Plants with simple alternate leaves.

Lumnitzera racemosa (White-flowered Black Mangrove – Combretaceae)

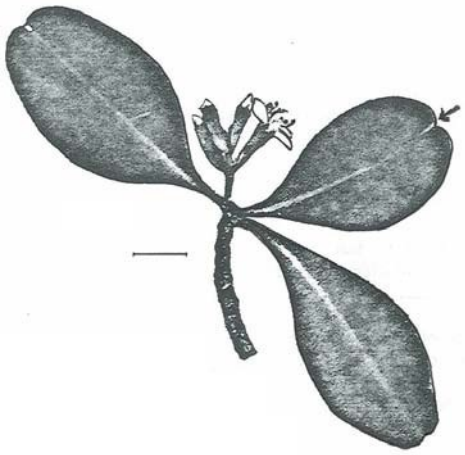
Lumnitzera is named after Stephan Lumnitzer, a Hungarian botanist (1750-1806).

The obovate leaves on this shrub are notched at the apex. A small gland(↑) is present just behind the notch on the lower surface. **White** flowers are borne in axillary racemes. Fruit fleshy drupe, flattened to 1.5 cm long. Flowering November.

Aegialitis annulata (Club Mangrove – Plumbaginaceae)

Aegialitis, from the Greek ***aigialos*** – seashore, referring to its preferred habitat.

Slender shrub to 1 m, stem usually swollen at the base. Leaves have a sheathing base (↑), which falls off leaving an annular scar. The upper surface of the leaf is pitted with salt glands, numerous salt crystals are usually present on the surface. Flowers **white**, calyx prominently ribbed. Propagule (↑) sometimes referred to as being 'spaghetti-like'. Flowering summer.



L. racemosa

A. annulata

Aegiceras corniculatum (River Mangrove – Primulaceae/Myrsinoideae)

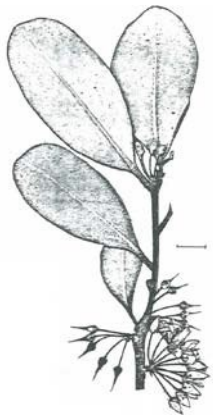
Aegiceras, derived from the Greek ***aix*** – goat, and ***keras*** – horn, referring to the fruit resembling goat's horns.

A bushy shrub with a smooth stem and obovate, glossy green leaves which bear small salt glands. Resin is also secreted. The fragrant, **white** flowers are followed by the cylindrical, curved, horn-like fruits. Flowering winter and spring.

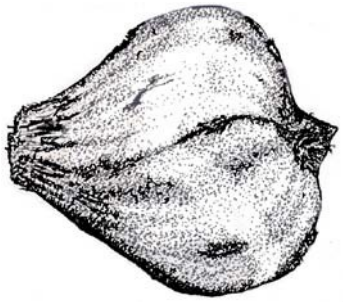
Barringtonia asiatica (Fish Killer Tree – Lecythidaceae)

Barringtonia, named after an 18th Century English jurist and naturalist, Daines Barrington.

A large tree with large, obovate to oblong leaves, which tend to cluster at the ends of branches. The **white** flowers are borne in pendulous racemes. The large, to 15 cm wide, 4-angled fruits, which have a fibrous pericarp, are often washed up as flotsam. Flowering April.



A. corniculatum



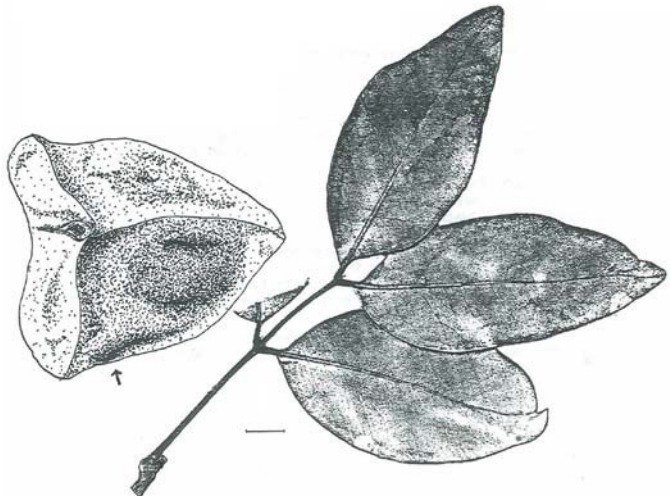
B. asiatica

GROUP 1.H Trees with compound, alternate leaves.

Xylocarpus moluccensis (Cedar Mangrove – Meliaceae)

Xylocarpus derived from the Greek words ***xylon*** – woody, and ***karpos*** – fruit, referring to the woody fruit.

This tree, deciduous when flowering, has dark brown, fibrous bark, which peels off in strips. There are numerous conical aerial roots, or pneumatophores, produced near the base of the trunk. This contrasts with ***Xylocarpus granatum*** (Cannonball Mangrove) found on the nearby mainland; here the flaky bark results in a blotchy appearance. It is buttressed at the base of the stem but pneumatophores are absent. Both have large (6-12+ cm wide) leathery fruits, which break open to release large angular seeds (↑) with a corky covering. These are often found in flotsam. Flowering January, flowers are cream to pink.



X. granatum on left, *X. moluccensis* on right

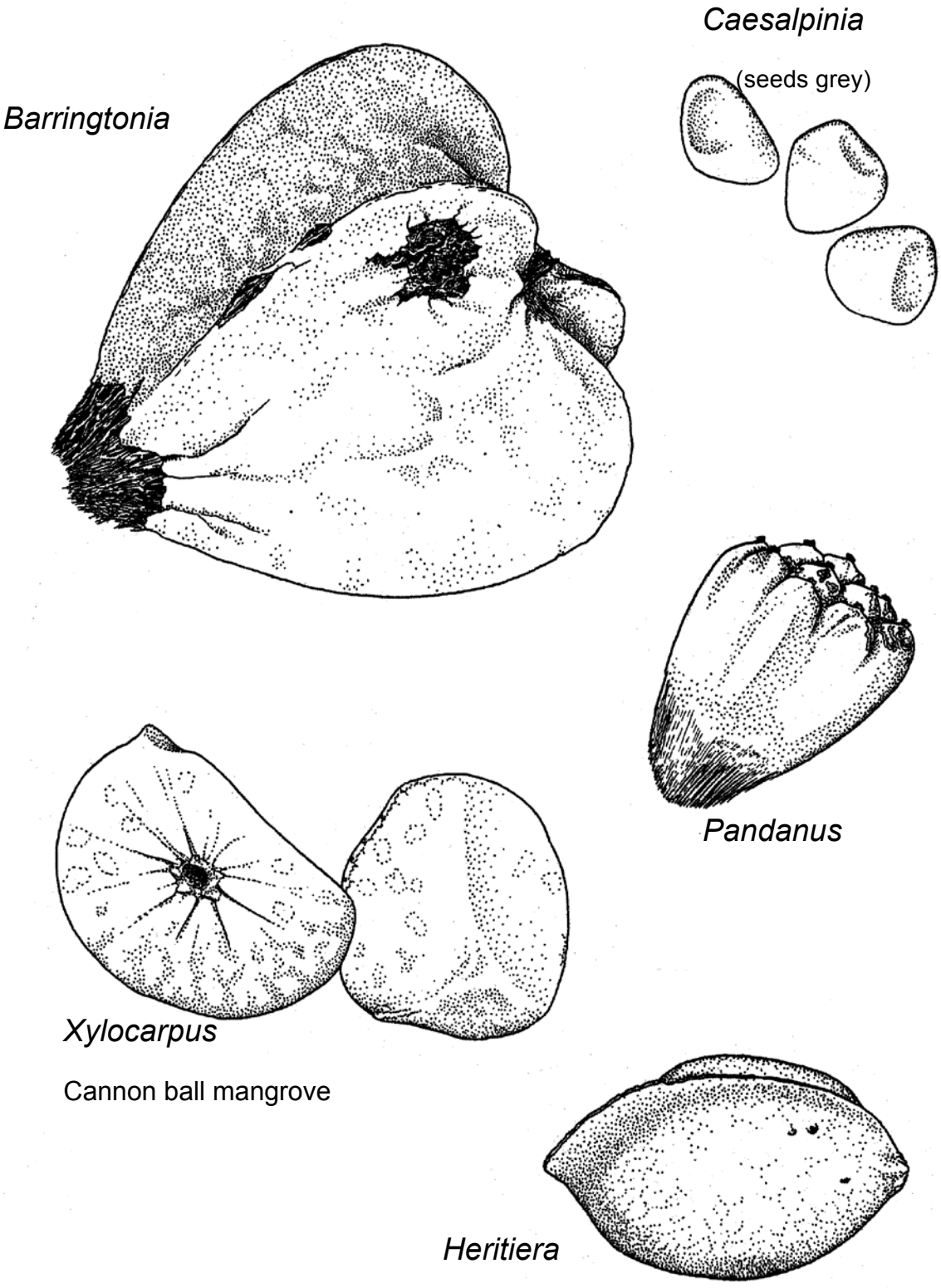
Cynometra iripa (Wrinkle Pod Mangrove – Caesalpinioideae-Fabaceae)

Cynometra is derived from the Greek words for dog and womb, apparently an allusion to the shape of the pods.

This spreading shrub or small tree has been found in the Picnic Bay area. It is readily recognised by the alternate leaves which have 2 pairs of leaflets, the lower pair of leaflets are smaller than the upper pair. There is usually a notch at the apex of each leaflet. The small white to pink flowers are followed by the

characteristic hard, wrinkly brown pods. The pods are up to 5 cm long and 4 cm wide, often smaller. There is a beak-like projection on the side. There are 1-2 seeds per pod. It is reported to only fruit in wet years.

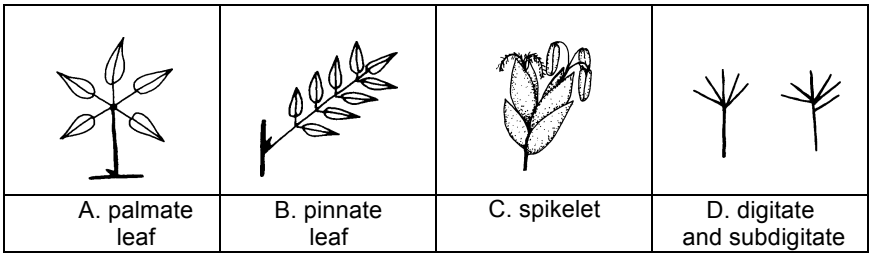
Some drift seeds…



Sketches by Ashley Field

KEY TO GROUP 2

Leaves with numerous parallel veins, chiefly herbs, sometimes epiphytic, **if** veins obscure then plants herbaceous and often epiphytic, **if** woody then floral parts are in multiples of 3. (All are monocots)



A. palmate leaf	B. pinnate leaf	C. spikelet	D. digitate and subdigitate

1 Plants woody, often tall, leaves undivided or palmately (see sketch A – like a hand) or pinnately divided (B) (palms, pandanus, grass trees) go to **Group 2.A**

1* Plants herbaceous, usually less than 1 m tall at maturity, except for some grasses, and some orchids, leaves undivided, sometimes long, thick and succulent go to 2

2 Mostly herbs, (grasses and sedges excluded), occasional vine, flowers not arranged in membranous spikelets, usually white, red or blue, perianth relatively unmodified i.e., flower parts are readily recognized as sepals and/or petals go to **Group 2.B**

2* Grasses and sedges, here flowers are arranged in spikelets (C), usually membranous, perianth highly modified or absent (doesn't look like a normal flower) go to 3

3 Leaf sheath closed at the base, stem usually solid, may be triangular go to **Group 2.C** (Sedges)

3* Leaf sheath open, stems solid at the nodes, rounded, a membranous or hairy structure common at junction of leaf blade and sheath (ligule) go to 4 (Grasses)

4 Inflorescence digitate or subdigitate i.e., arms arising from the same point or almost (D) go to **Group 2.D**

4* Inflorescence not arising from the same point or almost go to 5

5 Mature plants usually less than 1 m tall go to **Group 2.E**

5* Mature plants usually more than 1.5 m tall go to **Group 2.F**

NOTE: if necessary read through both groups.

GROUP 2.A Plants woody, usually tall, leaves various.

Archontophoenix alexandrae (Alexandra Palm – Arecaceae)

Archontophoenix, from Greek ***archon*** – chieftain, and ***Phoenix*** – the date palm, referring to its majestic appearance.

A feather-leafed palm with a solitary trunk, enlarged at the base. Inflorescence to 1 m long; separate male and female flowers, perianth **white to cream**. Fruit are bright red at maturity, 8-14 mm long.

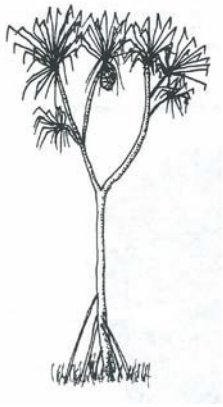
Livistona decora (Fan Palm, Cabbage Tree Palm, formerly ***Livistona decipiens*** – Arecaceae)

Livistona is named after Patrick Murray, Baron Livingston, whose garden later became the Edinburgh Botanic Gardens.

Tall fan-leafed palm with a solitary trunk. The base of the finely divided leaves is blackish. Leaves have been used for many purposes by aborigines and early settlers. Inflorescence to 3.5 m long; flowers **yellow**; fruit shiny black at maturity 12-18 mm long.

Habit of *A. alexandrae*

Habit of *L. decora*



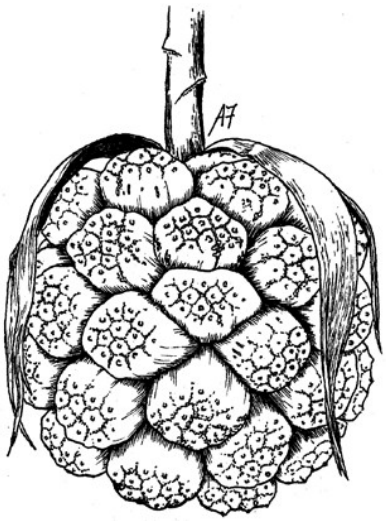
Habit of *Pandanus* sp.

Pandanus tectorius (Pandanus or Screw Pine – Pandanaceae)

Pandanus, from the Malay word for screw pines, ***pandan***.

This beachfront species has leaves that are spirally twisted, in older trees, stems may be branched. Prop or stilt roots usually present. The fruiting body resembles a large pineapple; individual nuts separate from the core at maturity.

Pandanus cookii (formerly ***Pandanus whitei***), does not usually have stilt roots although there may be protuberances along the stem and the fruiting body is much larger.



Xanthorrhoea johnsonii (Grass Tree – Xanthorrhoeaceae)

Xanthorrhoea, from the Greek words ***xantho*** – yellow, and ***rheo*** – to flow, referring to the yellow resin that is often produced from the leaves.

This plant has a thick trunk, topped by numerous long, narrow leaves forming a skirt. An old flower spike is often present. Flowers are **white to cream**; fruit 3

lobed capsules. The chief pollinators are butterflies. Nectar mixed in water makes a sweet drink – ignore the bugs! Resin from the leaves has been used to attach spear heads and for sealing holes.

GROUP 2.B Flowers have readily recognized sepals and/or petals (not modified), usually white, red or blue.

Commelina ensifolia (Wandering Jew, Scurvy Grass – Commelinaceae)

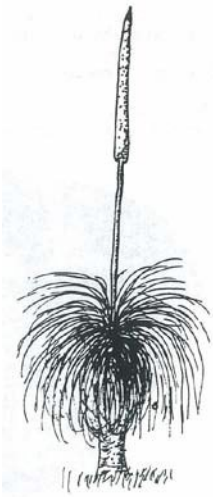
Commelina, named by Linnaeus after Jan and Kaspar Commelin, Dutch botanists.

Weak sprawling plants, rooting at the nodes. **Blue** flowers initially enclosed within a green spathe (↑). Fruit a dry dehiscent capsule opening with 2-3 valves. Several other species may be encountered.

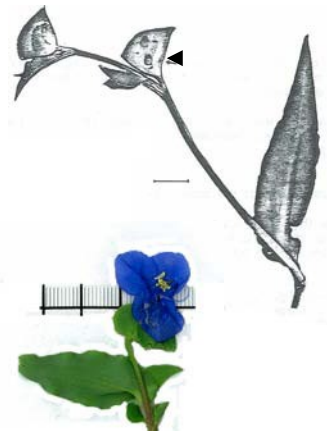
Lomandra longifolia (Narrow-leafed Mat Rush – Asparagaceae/Laxmanniaceae)

Lomandra, from the Greek ***loma*** – margin or border, and ***andros*** – male, referring to the nature of the anthers.

Tufted plants with stiff narrow leaves. Inflorescence usually a panicle of clusters, male panicles larger than females, flowers **white to mauve**. Leaf bases, flowers and seeds are edible; fruit a 3-valved capsule. Leaves can be used for weaving. A similar species is ***L. hystrix***, but it usually has 4 or more branches per node of the inflorescence rather than 2.



X. johnsonii



C. ensifolia

L. longifolia

Murdannia graminea (Slug Herb, Pink Swamp Lily – Commelinaceae)

Murdannia named for Murdan Aly, an Indian botanist.

This small grass-like plant up to 40 cm high, prefers moist grassland habitats. It usually flowers in February and March. Flowers have 3 **mauve or pink** petals, forming sprays at the end of the stem; fruit a 3-valved capsule to 1 cm long.

Haemodorum coccineum (Scarlet Bloodroot – Haemodoraceae)

Haemodorum, from the Greek words ***haima*** – blood, and ***doron*** – gift, referring to the colour of the flowers and the sap in many parts.

Herb to 1 m tall, the mainly basal strap-like leaves die back in winter. Panicles of dark **red** flowers are carried well above the leaves. Fruit a red, 3-lobed capsule. The red sap in the rhizome may be used as a dyestuff.

Dianella caerulea (Blue Flax Lily – Hemerocallidaceae)

Dianella a diminutive of Diana, goddess of the hunt, referring to the woodland habitat.

The long linear leaves alternate along the stem but successive leaves are arranged on opposite sides of the stem, thus 1 to one side and then the next at

180^0 to it but further up the stem (distichous). Sheaths closed at the base on young leaves. The **blue** flowers with yellow stamens are borne in panicles, which may be spreading or narrow. Other species may occur.
Berries blue, edible. Leaves used for making nets and baskets by indigenous people.

M. graminea

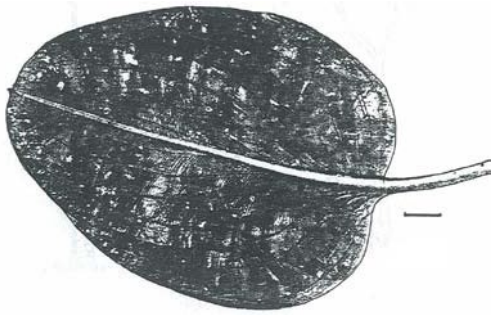
H. coccineum

D. caerulea

Agave vivipara var. ***vivipara*** (Sisal – Asparagaceae/Agavaceae)
Agave, from the Greek ***agavos*** – admirable, referring to the appearance of the flower.
The thick, succulent, greyish-green leaves arranged in a rosette, have sharp hooks along the margins and the tip ends in a spiny point. The flowering spike may be up to 3 m tall. This introduced plant is rapidly becoming a pest.

Proiphys infundibularis (Townsville Lily – Amaryllidaceae)
Proiphys, from the Greek meaning to bring forth, referring to the premature germination of the seed.
This lily has a very broad leaf and **white** trumpet-shaped flowers, to 5 cm long and 4.5 cm wide. Fruit a capsule greenish to yellow, to 3.5 cm long.

A. vivipara var. *vivipara*



P. infundibularis

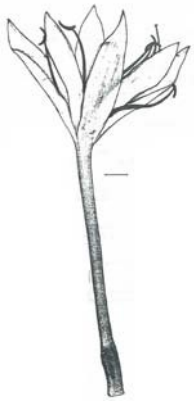
Crinum pedunculatum (Swamp Lily, River Lily, Spider Lily – Amaryllidaceae)
Crinum, from the Greek ***crinon*** – a lily.
This lily with strap-like leaves, produces large, **white** tubular flowers in summer. The filaments (stalk of the stamens) are white at the base but becoming dark pink near the top. Fruit are green capsules. The mucilaginous sap can be used to

soothe the effect of stings. ***Crinum angustifolium*** (Field Lily) can be distinguished by leaves being 3-6 mm wide rather than up to 10 cm wide, there are also some floral differences.

Eustrephus latifolius (Wombat Berry –Asparagaceae/ Laxmanniaceae)

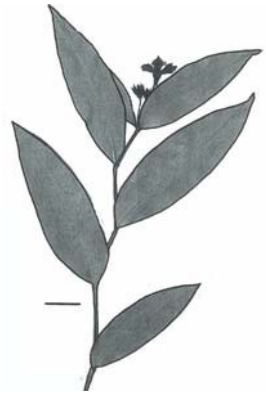
Eustrephus, from the Greek ***eu*** – well, and ***strepho*** – to twine, referring to the climbing habit.

Leaves linear to lanceolate, both surfaces are dull, and there are several equally distinct longitudinal veins. Two to ten **pink** flowers in axillary umbels (flower stalks arise from a common point), petals fringed on margin; fruit globular orange, dehiscent. This species may be confused with ***Geitonoplesium cymosum*** (Scrambling Lily – Hemerocallidaceae). However here the leaves have a shiny upper surface and the midvein is more prominent than the other veins; the flowers are **mauve to white**, fruit black, indehiscent.



C. pedunculatum

E. latifolius



Geitonoplesium cymosum

Orchids recorded for the island are indicated in the list of "Vascular plants collected on Magnetic Island" (Appendix 1). For more details refer to a specialist book.

GROUP 2.C Leaf sheath closed at the base, stem usually solid, often triangular. Sedges, usually in moist areas.

Scleria sphacelata (Razor Grass – Cyperaceae)

Scleria, from ***scleros*** a Greek word referring to the hard fruits.

Species in this genus are readily recognized by the distinctive whitish nut (↑). This plant grows to 1 m tall, and has triangular stems. The flat leaves are roughened on the margins.

Abildgaardia vaginata (formerly ***Fimbristylis brownii*** – Cyperaceae)

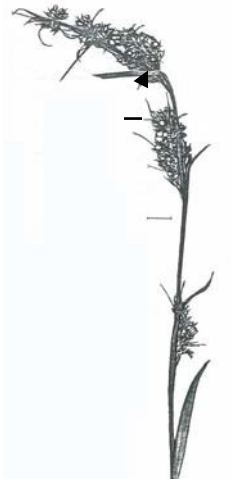
Abildgaardia, named for a Danish veterinarian, Nicolai Abildgaard (1743-1809) who had eclectic interests.

Tufted herb with leaves reduced to sheaths. Spikelets tightly clustered at the end of the flowering stem or peduncle. Glumes are reddish-brown.

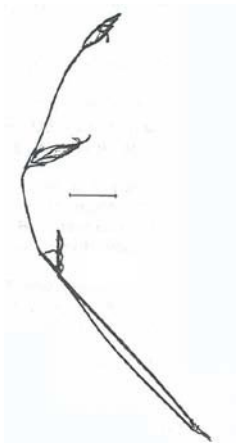
Fimbristylis polytrichoides (Fringe Rush – Cyperaceae)

Fimbristylis, referring to the style which is often ciliate or fringed.

This species is a small leafy plant often found growing in association with the saltwater couch; glumes spirally arranged.



S. sphacelata



A. vaginata

F. polytichoides

Gahnia aspera (Saw Sedge, Large-seeded Gahnia – Cyperaceae)

Gahnia, named by Linnaeus after a friend, Swedish botanist Dr Henricus Gahn.

Spikelets in terminal clusters. Seeds, reddish-brown, smooth often suspended by a thread from the glumes. Leaves flattened, usually rough.

Eleocharis dulcis (Spike Rush, Bulkuru Sedge, Water Chestnut – Cyperaceae)

Eleocharis, from the Greek ***heleos*** – marsh, and ***charis*** – delight, referring to its preferred habitat.

Found growing in swampy places such as the lagoon at Horseshoe Bay. Stems arise from underground rhizomes. Leaves are absent. Inflorescence is a cylindrical, single, terminal many-flowered spikelet. An important food source for many water birds.

G. aspera

E. dulcis

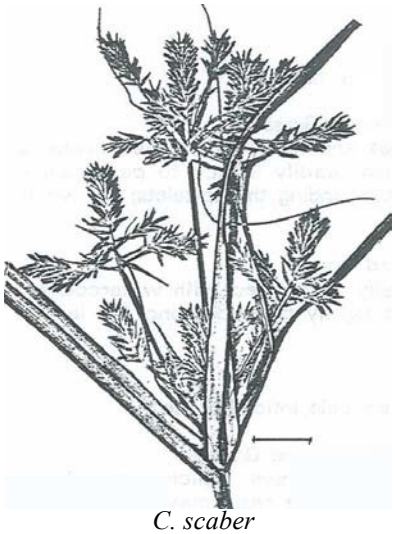
Cyperus scaber (Cyperaceae)

Cyperus, from the Greek – ***cyperion*** a name used by Homer and Theophrastus for several plants of this genus.

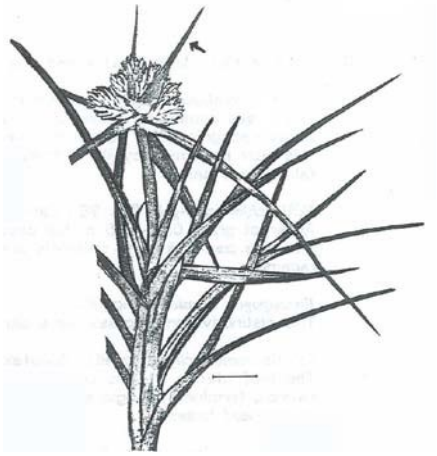
Inflorescence surrounded by several long, leaf-like bracts, glumes distichous i.e. arranged in two opposite rows, one on each side of the axis. Plants up to 1 m tall, stems triangular. **NOTE:** Nut grass is in this genus, it also has the bracts typical of the genus.

Cyperus pedunculatus (Pineapple Sedge – Cyperaceae)

A dune plant with short shoots arising from subterranean stems. These shoots bear slender, rigid, sharply pointed leaves. The inflorescence is surrounded by several leaf-like bracts (↑). Glumes are distichous i.e., opposite one another. This species can be found at the northern end of Horseshoe Bay.



C. scaber



C. pedunculatus

GROUP 2.D Branches of the inflorescence arise from the same point or nearly. (Grasses)

Chloris barbata (Purpletop Chloris, Purpletop Rhodes Grass – Poaceae)*

Chloris, from ***chloros*** – green, Chloris was the Greek goddess of flowers.

Plant usually about 50 cm tall, but may be up to 1 m. Inflorescence purplish, composed of 6-15 digitate (like fingers from one point) spikes arranged in 1-2 whorls at the top of the stem.

Eleusine indica (Crowsfoot Grass – Poaceae)*

Eleusine, Eleusis was the site of the temple of Ceres, the goddess of the harvest.

The inflorescence of this tufted, more or less procumbent grass is a subdigitate panicle; 2-6 spikes are arranged digitately with 1 usually attached below the others on the stem (↑).

Dactyloctenium aegyptium (Coast Finger Grass, Coastal Button Grass – Poaceae)*

Dactyloctenium, from the Greek ***daktylos*** – a finger, and ***ktenos*** – comb, alluding to the comb-like arrangement of the spikelets.

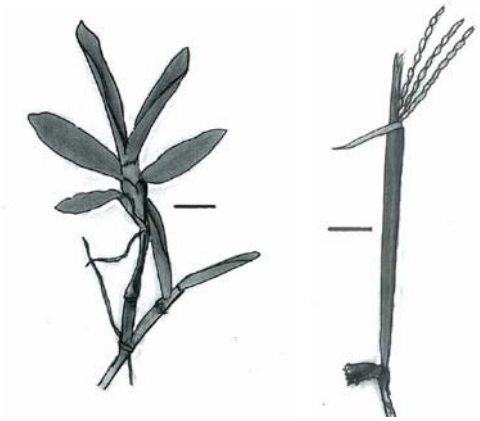
This tufted semi-prostrate grass rarely grows above 20 cm, although it can be much taller. The inflorescence of 5-7 short spikes, 1.2-6.5 cm long, they form a tight whorl at the top of the stem. In ***Dactyloctenium radulans*** (Button Grass) the spikes are 0.5-1.5 cm long.

C. barbata

E. indica

D. aegyptium

NOTE: ***Sporobolus virginicus*** (**Group 1.B**) may key out here, likewise for several common lawn grasses. These are: ***Axonopus compressus***, (Broad-leafed Carpet Grass – Poaceae)*; leaves 3-12 mm wide. ***Brachyachne convergens*** (Common Native Couch – Poaceae), here the glumes cover the fertile floret; and ***Cynodon dactylon*** (Couch Grass – Poaceae), here the glumes are shorter than the fertile floret.



Axonopus compressus

Cynodon dactylon

GROUP 2.E Mature plants usually less than 1 m high. SEE also Group 2F. (Grasses)

Melinis repens (Red Natal Grass, formerly ***Rhynchelytrum repens*** – Poaceae)*

Melinis, from the Greek word for a type of millet, ***meline*****.**

A short-lived tufted grass introduced from Africa. Inflorescence is a reddish open panicle; the shiny, hairy spikelets may be pink, purplish or whitish when old. The pedicels also bear long hairs.

Cenchrus echinatus (Mossman River Grass – Poaceae)*

Cenchrus, from the Greek ***kenchros*** – a type of millet.

This grass, commonly found on dunes and nearby disturbed areas, is easily recognized by its “burrs”, which readily attach to passers-by. This burr is formed by the bristles surrounding the spikelets; the whole falling as a unit.

Echinochloa colona (Awnless Barnyard Grass – Poaceae)*

Echinochloa, from the Greek ***echinos*** – a hedgehog, and ***chloe*** – young grass, referring to the appearance of the spikelets in some species.

Plant usually erect, sometimes decumbent up to 1 m tall but usually much smaller, spikelets are tightly packed along the racemes. Lower surface of the racemes may be purplish in colour. ***Echinochloa crus-galli*** (Barnyard Grass or Cockspur Grass)* is readily distinguished by the presence of the awns.

Enneapogon nigricans (Black Heads – Poaceae)

Enneapogon, from ***ennea*** – nine, and ***pogon*** – beard, referring to the 9 awns on the back of the lemmas.

A distinctive, small grass with its compact inflorescence, which darkens with maturity. The awns are easily seen with a hand lens.

M. repens *C. echinatus* *Ec. colona* *En. nigricans*

Triodia stenostachya (Spinifex, Porcupine Grass – Poaceae)

Triodia, from the Greek ***treis*** – three, and ***odous*** – tooth, referring to the 3-toothed or 3-lobed lemmas.

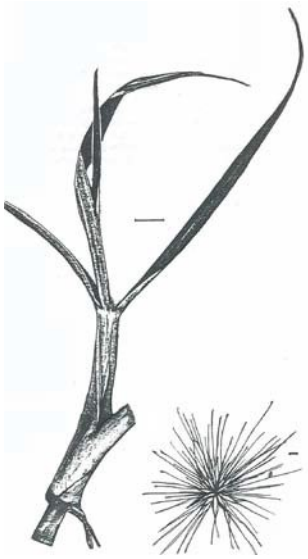
This coarse tussocky grass forms large clumps, and with age the central portion of the clump dies and a ring forms. This ring is often very prominent in desert areas. The leaves terminate in sharp, rigid points. Leaf bases are resinous.

Spinifex sericeus (Hairy Spinifex, Beach Spinifex – Poaceae)

Spinifex is derived from the Latin ***spina*** – thorn, and ***facere*** – to make, referring to the sharp pointed leaves.

This distinctive, grey-coloured grass, with its silky hairs, is an early colonizer of sand dunes. The female inflorescences form the distinctive heads up to about 20 cm diameter, which are bowled along by the wind.

T. stenostachya



S. sericeus

Eragrostis spp. (Love Grass – Poaceae)

Eragrostis, there are several suggestions for the origin of this name, the most widely accepted is from the Greek, ***eros*** – love, and ***agrostis*** – wild grass, apparently referring to their beauty.

Spikelets are flattened in the one plane (↑), each spikelet has many similar florets. There is a lot of variation within the genus in both the size of plants, and of the inflorescence.

Themeda triandra (Kangaroo Grass – Poaceae)

Themeda, from the Arabic name for this plant ***thaemed***, the first specimen was collected in Yemen.

A tufted erect plant; the inflorescence is initially a reddish panicle, the colour fading with age. The individual inflorescence clusters often appear to nod, racemes are subtended by spathes (↑). A much taller species, the weed, Grader Grass*, may occur.

Heteropogon contortus (Black Spear Grass – Poaceae)

Heteropogon is derived from the Greek ***heteros*** – different, and ***pogon*** – beard, referring to the male spikelet being awnless and the female spikelet is awned.

This grass and the much taller ***Heteropogon triticeus*** (Giant Spear Grass) are readily recognized by the long twisted awns that are often matted together forming clumps. This species is usually less than 1 m tall and the racemes are less than 6 cm long.

Heteropogon triticeus (Giant Spear Grass – Poaceae)

This species grows to about 2 m tall and the racemes are usually more than 9 cm long. The awns are greenish rather than black as in the previous species.

Eragrostis spp.

T. triandra

H. contortus

H. triticeus

GROUP 2.F Plants usually more than 1 m tall. (Grasses)

Phragmites vallatoria (Reed Grass, formerly ***Phragmites karka***, – Poaceae)

Phragmites is derived from the Greek ***phragma*** – a fence or screen, as it usually grows in dense colonies, so forming a barrier.

This grass is rarely less than 1.5 m tall, grows in wet areas such as in the lagoon at Horseshoe Bay, the tall stems arise from creeping rhizomes. The lowest node of the inflorescence usually has many branches, and only a few spikelets are borne on these lower branches; the upper glume is 4-6 mm long. ***Phragmites australis*** has only a few branches arising at the lower nodes of the inflorescence; the upper glume is 5-9 mm long.

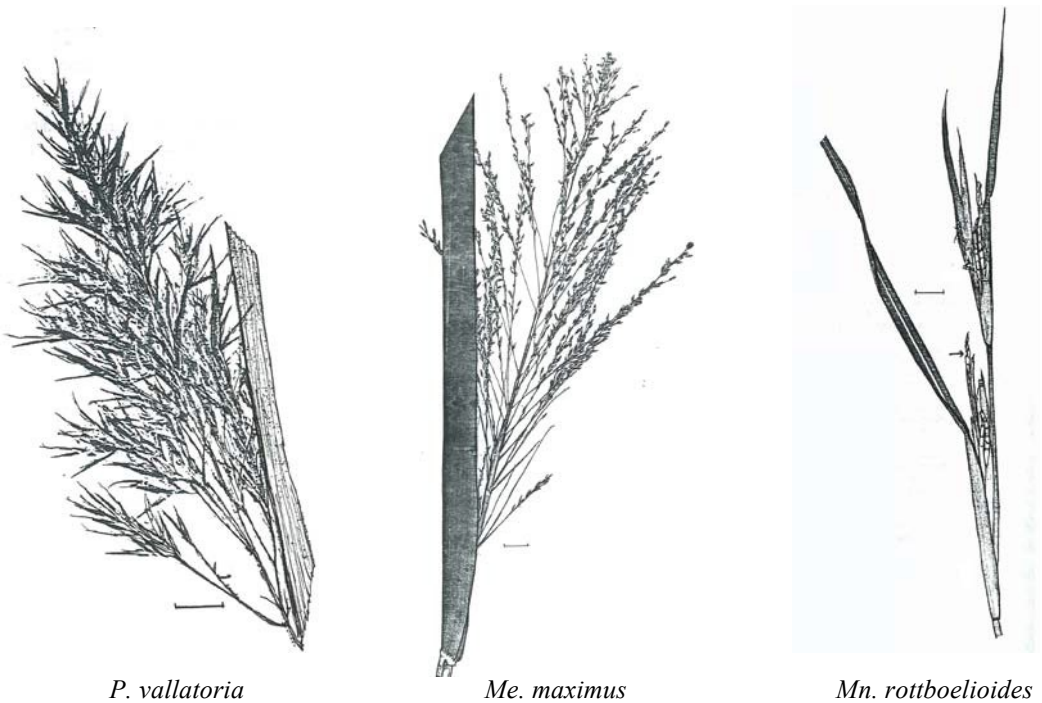
Megathyrsus maximus (Guinea Grass, formerly ***Panicum maximum*** – Poaceae)*.

Megathyrsus refers to the large inflorescence also known as a thyrse. ***Panicum*** is derived from the Latin name for millet or bread, ***panis***.

A tall clumping grass to 2 m tall, easily recognized by its very open panicle, with mostly whorled branches and solitary spikelets. This large open panicle is a characteristic of the genus. Introduced from Africa.

Mnesithea rottboellioides (Northern Cane Grass, formerly ***Coelorachis rottboelioides***) – Poaceae).

Mnesithea is named for Mnesitheos, a Greek physician who was interested in edible plants. A tall erect grass to 3 m tall, usually found in moist areas. Readily recognized by the inflorescence, which is a panicle of cylindrical racemes, and the paired spikelets which at maturity break off at the joints (↑).



P. vallatoria *Me. maximus* *Mn. rottboelioides*

Cymbopogon refractus (Barbed Wire Grass – Poaceae)

Cymbopogon, from the Greek ***kumbe*** – boat, and ***pogon*** – beard, referring to the boat-shaped spatheoles (↑) subtending the racemes.

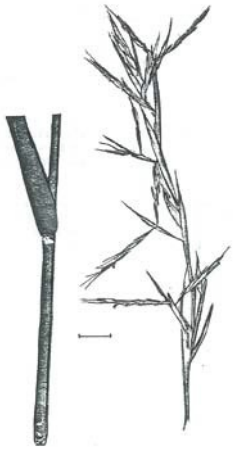
This plant ranges from 30 to 150 cm tall. As with all the other species of this genus, the leaves are faintly aromatic when crushed resulting in a lemony smell. The inflorescence is composed of paired racemes reflexed at maturity but are not woolly. These racemes are subtended by a reddish spatheole (↑). There are two other species, which may be noticed, because both have prominent silky hairs associated with the inflorescence.

Cymbopogon bombycinus (Silky Heads, Citronella Grass, Silky Oil Grass)

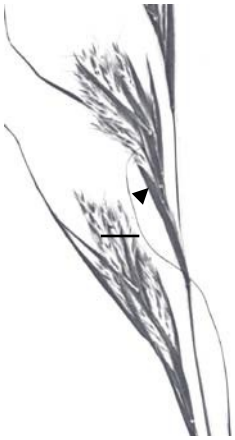
Spikelets densely covered with silky hairs 4-7 mm long which arise from the callus at the base of each spikelet, resulting in a fluffy appearance.

Cymbopogon ambiguus (Scent Grass).

Spikelets not completely covered with dense woolly hairs, appears greenish rather than whitish. The leaves are distinctively rolled back and reddish. In ***C. queenslandicus*** the hairs are shorter and the racemes are reflexed at maturity rather than being erect.



C. refractus



C. bombycinus

Urochloa mosambicensis (Sabi Grass, Perennial Urochloa – Poaceae)*

Urochloa , Greek ***ouro*** – tail, and ***chloe*** – grass, refers to the fertile lemma contracting into a short awn, tail-like.

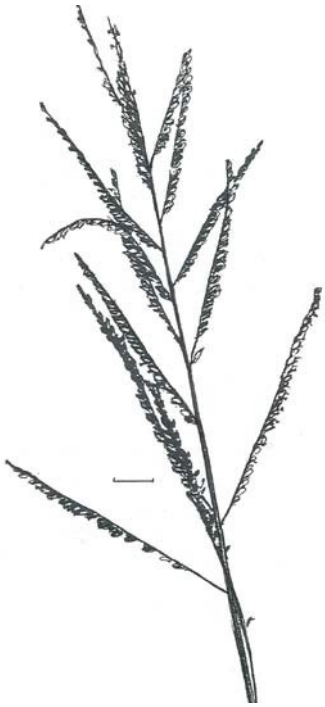
This common, often mat forming grass is distinguished from ***Paspalum*** by the presence of a lower glume. The ligule (↑) is a rim of short hairs wheras in the latter it is membranous with a tuft of hairs on either end. Sabi Grass in non-grazed or mown areas is an upright plant but sprawls under the pressure of grazing or mowing. The spikelet has 1-3 stiff hairs on the back, these are lacking in Para grass.

Urochloa mutica (Para Grass, formerly ***Brachiara mutica*** – Poaceae)*

This introduced grass is usually more than 1 m in height, but if plants have fallen over they will appear much shorter, however, smaller plants may be found. It grows from stolons which root at each node. Usually found in moist swampy areas. There are 10-20 racemes per inflorescence.

Urochloa subquadripara (formerly ***Brachiara subquadripara***) has fewer racemes (3-5) and is usually found growing in woodland areas.

U. mosambicensis



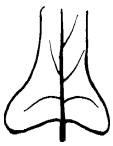
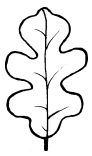
U. mutica

KEY TO GROUP 3

Vines and Mistletoes.

NOTE: Epiphytic plants with latex and alternate leaves will be figs becoming established, please refer to **Group 4.A**.

Epiphytic herbaceous plants with thick leaves will be orchids, please refer to a specialist book.

					
A. leaves opposite	B. leaves alternate	C. flower pea-shaped	D. leaf entire	E. leaf cordate	G. leaf lobed

1 Mistletoes; epiphytic shrubs partially parasitic on branches of other woody trees or shrubs, usually attached by haustoria — go to 2

1* Vines; if parasitic, then not epiphytic — go to 3

2 Leaves opposite (see sketch A) **or** plant apparently leafless — go to **Group 3.A**

2* Leaves alternate (B) — go to **Group 3.B**

3 Vines with a white milky sap exuding from the broken stem or petiole (Check **Group 4** also) — go to 4

3* Vines without a milky sap exuding from a broken stem or petiole — go to 5

4 Stems leafless, often fleshy — go to **Group 3.C**

4* Stems with leaves opposite each other (sketch A), **if alternate** (sketch B) then leaves rough **or** flowers with petals fully fused with a thickened area in the centre of each 'petal' — go to **Group 3.D**

5 Vines apparently leafless — go to **Group 3.E**

5* Vines with obvious leaves — go to 6

6 Vines with pea-shaped flowers (C), fruit a legume i.e., bean-like, may be short — go to 7

6* Vines lacking pea-shaped flowers, fruit not a legume — go to 8

7 Leaves with 3 leaflets — go to **Group 3.F**

7* Leaves with 5 or more leaflets — go to **Group 3.G**

8 Leaves compound with many leaflets **or** leaves deeply dissected — go to 9

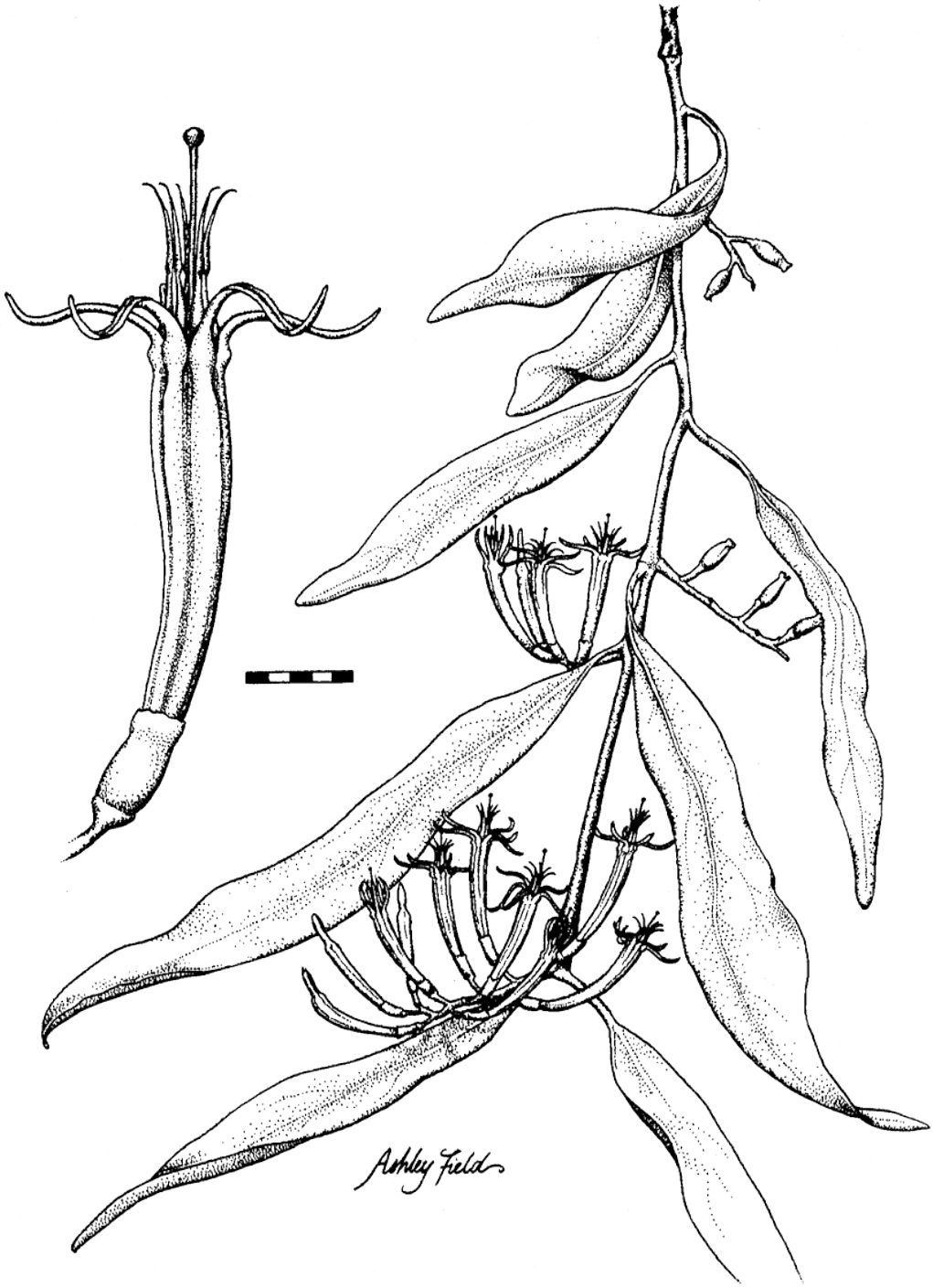
8* Leaves simple, i.e., a single leaf (see sketch D), sometimes lobed but not deeply dissected — go to 10

9 Leaves opposite (A) or occasionally sub opposite on the twigs — go to **Group 3.H**

9* Leaves alternate (B) on the twigs — go to **Group 3.I**

10 Leaves simple, margins entire (D), not lobed except the base may be cordate (E – variously indented) — go to **Group 3.J**

10* Leaves simple, margins lobed (F) — go to **Group 3.K**


Ashley Field

GROUP 3.A Mistletoes (epiphytes) with leaves opposite or apparently leafless.

Amyema bifurcata (Loranthaceae)

Amyema, from the Greek ***a*** – not, and ***myeo*** – I point out anew, i.e., the author of the new genus considered it was different from another genus.

Plant pendulous, leaves opposite. Flowers **whitish to rusty** in groups of 2, corolla straight, petals 5, free from one another. This species is found only on eucalypts.

Amyema conspicua subsp. ***conspicua*** (Loranthaceae)

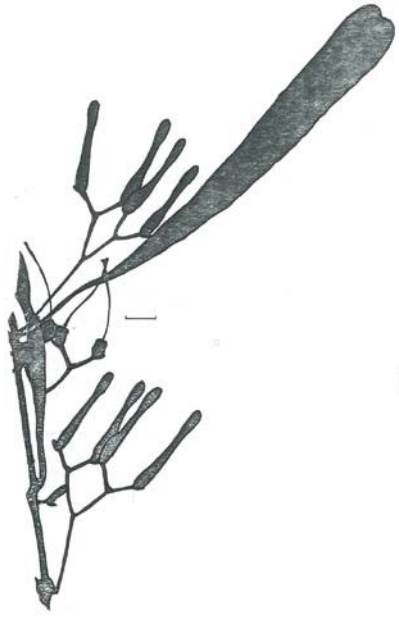
Leaves opposite, 12-45 mm wide. Flowers **green**, flowers in groups of 3. Hosts variable, but often on ***Alphitonia*** and ***Terminalia***. A similar species ***Amyema congener*** (not illustrated) has opposite leaves 10-15 mm wide. Flowers are green to yellow, in groups of 3. Hosts commonly ***Acacia*** and ***Geijera***.

Two species with **red** flowers and a straight corolla are: ***Amyema miquelii*** without epicortical runners (refer to figure after Group 3B) and ***Amyema sanguinea*** (Blood Mistletoe) with epicortical runners (refer diagram under **Group 3.B)**. Although the latter has not yet been recorded from the Island, it is possible that seeds may have been transported by birds.

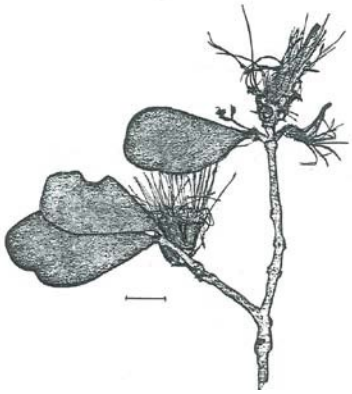
Viscum articulatum (Viscaceae)

Viscum is a Latin name referring to it habit as a mistletoe, name initially used by Pliny and Virgil.

A pendulous, semi-epiphytic plant with flattened quadrangular internodes; leaves greatly reduced so as to form a rim. Flowers and fruits are borne at the nodes, flowers small, perianth 4, **orange**, fruits are succulent, semi-translucent, white, yellow to pinkish. This plant is often parasitic on other mistletoes. Flowering February.



A. bifurcata



A. conspicua

V. articulatum

Lysiana maritima (Loranthaceae)

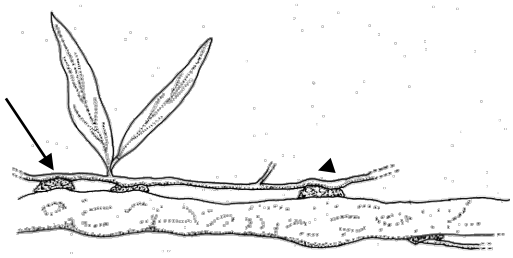
Lysiana, from ***lysis*** a Greek word meaning splitting, i.e., differs from the genus ***Loranthus***.

Leaves opposite; flowers in pairs, curved, **red** at maturity, petals 6, free. Typically found in mangrove communities.

GROUP 3.B Leaves alternate.

Dendrophthoe glabrescens (Loranthaceae)

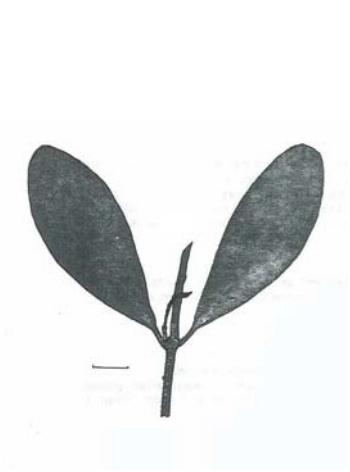
Dendrophthoe, from ***dendron*** – a tree, and ***phthoe*** – corruption, referring to parasitic habit. Leaves alternate; flowers in a raceme, **yellow to orange**, curved, petals 5, partly fused. Epicortical runners often present; hosts various. ***Dendrophthoe vitellina*** is similar but the ovary is covered in fine hairs.



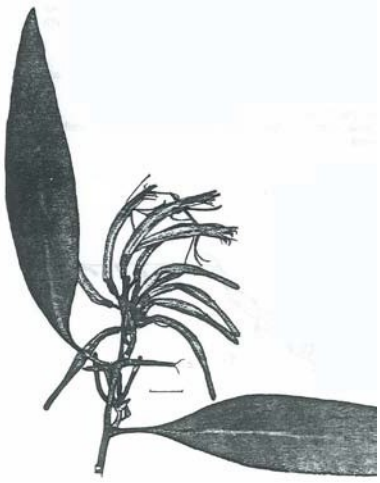
GROUP 3.C Stems leafless, often fleshy, sap milky.

Cyanchum viminale subsp***. brunonianum*** (Caustic Vine, Caustic Bush – Apocynaceae)

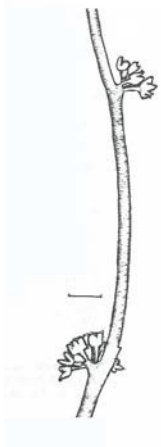
Cynanchum from the Greek *kynos* − dog and a*nchein* − to choke, the sap is poisonous. A scrambling, leafless, sprawling vine, with copious milky sap **(CAUTION).** **Creamy-white** flowers arise in clusters at the nodes. Fruits pod-like, brownish, splitting along 1 side, seeds plumose.



L. maritima



D. glabrescens



C. viminale

GROUP 3.D Leaves opposite, sap milky or watery.

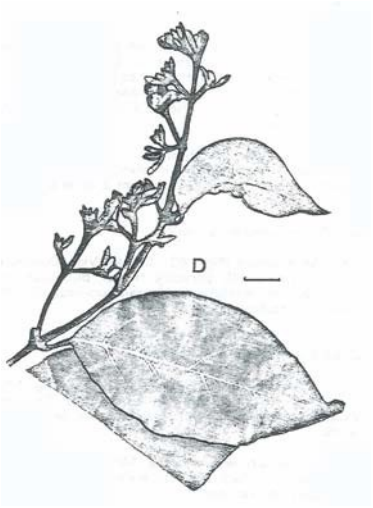
Ichnocarpus frutescens (Black Creeper – Apocynaceae)

Ichnocarpus, from the Greek ***ichnos*** – vestige, and ***karpos*** – fruit, referring to the thin fruit. Tall climber, sometimes almost shrubby, flowers **cream**, stamens exserted from corolla tube, fruits pod-like, paired, up to 13 cm long, seeds plumose.

Parsonsia lanceolata (Apocynaceae)

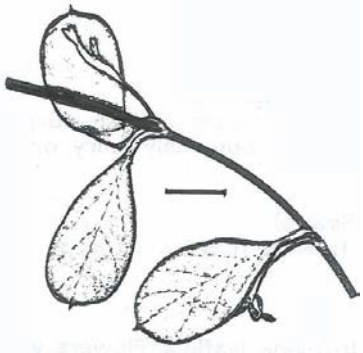
Parsonsia, named for James Parsons (1705-70) a London physician and naturalist. Tall climber with watery sap. Flowers **cream**, stamens form a cone around the stigma. Fruits paired to 13 cm long. Genus distinguished by the long silky hairs associated with the seeds. Several species recorded for the Island.

Cynanchum carnosum / Vincetoxicum carnosum (Coastal Cynanchum – Apocynaceae)
Cynanchum, from the Greek ***kynos*** – dog, and ***anchein*** – to choke, the sap is poisonous.
A slender twiner usually found near mangroves. Flowers small and **white to yellowish green**; fruits in pairs, to 7 cm long, seeds plumose.



I. frutescens

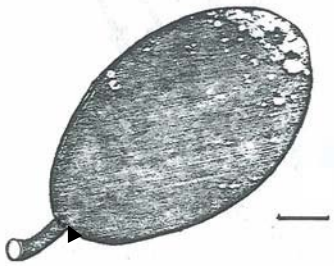
P. lanceolata

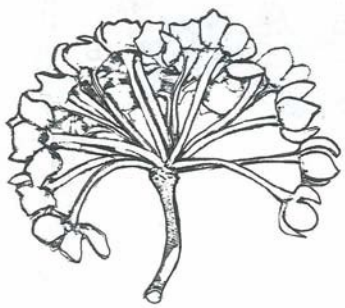


C. carnosum

Hoya australis (Wax Flower – Apocynaceae)
Hoya, named after Thomas Hoy (1750-1822), gardener at Syon House, London.
Leaves fleshy, ovate to oblong to 15 x 12 cm, several small glands (↑) often present at base of midrib on upper surface. Flowers **white to pinkish**, 10-20 per umbel, petals 5, corona of 5 fleshy segments present. Fruits pod-like to 18 cm long, seeds plumose.

Melodinus australis (Southern Melodinus – Apocynaceae)
Melodinus**,** from the Greek ***melon*** – apple, and ***dinein*** – to twist, this plant has an apple like fruit and twisting stems.
Climber with fleshy, indehiscent, orange to red fruits. Flowers **creamy**, anthers not fused to form a cone around the stigma. Fruit an ellipsoid berry usually 4-5 cm long, orange to red, seeds lack hairs.





H. australis

M. australis

Cryptostegia grandiflora (Rubber Vine – Apocynaceae previously in Asclepiadaceae)*

Cryptostegia, from the Greek ***kryptos*** – hidden, and ***stego*** – scales, referring to the scales in the throat that cover the anthers.

Robust woody vine or scrambler, leaves to 10 x 4.6 cm. Flowers large to about 6 cm long, bell-shaped, **purplish** fading to white with age. Paired fruits diverge at the base, to 15 cm long filled with numerous hairy seeds. Introduced, a declared plant or weed.

Gymnanthera oblonga (Native Rubber Vine – Apocynaceae)

Gymnanthera, from the Greek ***gymnos*** – naked, and ***anthere*** – anther, anthers lack hairs.

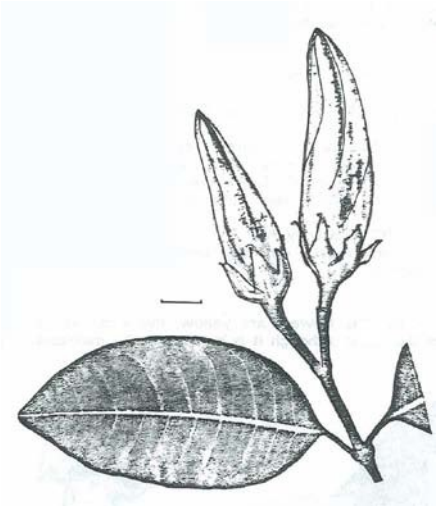
Robust vine, lenticels prominent on stem, leaves opposite to 12 cm long and 8 cm wide; flowers to 1.7 cm long, corolla **cream to yellowish**, tube cylindrical. Fruiting follicles to 14 cm long.

GROUP 3.E Vine, apparently leafless.

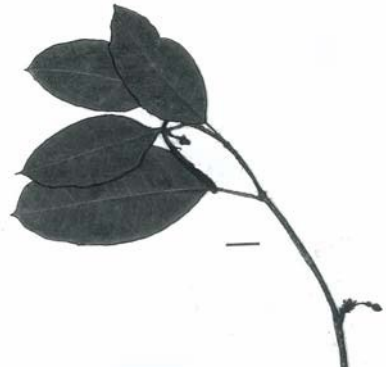
Cassytha pubescens (Dodder Vine, Dodder Laurel – Lauraceae)

Cassytha, from the Greek name ***casytas*** – dodder, similar name used in Arabic and Syrian.

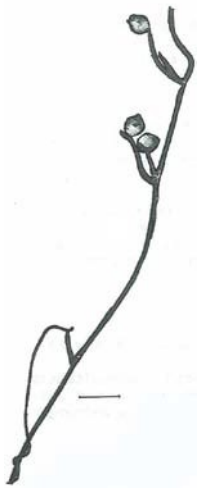
This leafless, partly parasitic twiner, pubescent at least when young, has stems > 1 mm diameter. It clings to the neighbouring vegetation by small suckers. Plants are often orange in appearance. Fruits are pale green to pinkish, succulent, edible. ***Cassytha filiformis*** has stems < 1mm diameter, and lacks hairs. **NOTE:** ***Cuscuta campestris*** (Golden Dodder) has been collected; fruit a capsule.



Cr. grandiflora



G. oblonga



Ca. pubescens

GROUP 3.F Vines with 3 leaflets; flowers pea-shaped and fruit a pod or legume.

Glycine tabacina and ***G. tomentella*** (Glycine – Fabaceae)

Glycine, from the Greek word ***glykys*** – sweet, as the leaves and roots of some species are sweet tasting.

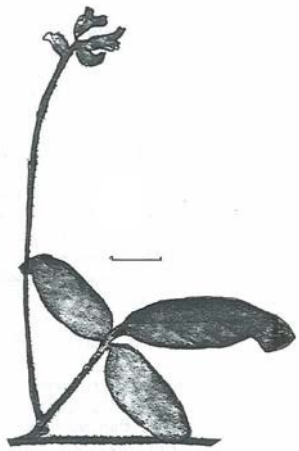
Twining or weakly climbing vines, with **pinkish-purple** flowers in racemes. In ***Glycine tabacina*** (Glycine Pea, Variable Glycine) the leaves are sparsely hairy and the racemes are 4-23 cm long, pod slightly hairy. In ***Glycine tomentella*** (Woolly or Rusty Glycine) the leaves are obviously hairy on both surfaces; the racemes are 3.5-10 cm long, pod is usually covered with rusty hairs. This latter species is similar to a species described in 2006 from west of Townsville, ***Glycine syndetika***, here the rachis or 'petiole' of the terminal leaflet is only up to 4 mm long, in ***Glycine tomentella*** it is usually 4-15 mm long.

Macroptilium atropurpureum (Siratro – Fabaceae)*

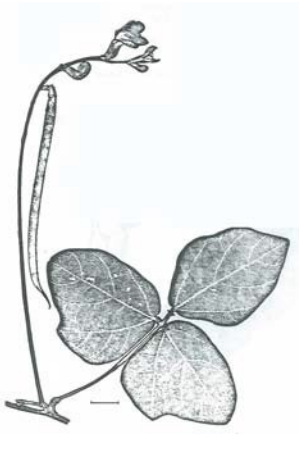
Macroptilium, from ***macro*** – large, and ***ptilium*** – wing, referring to the large wing petals.

This vine, introduced as a pasture plant, is now becoming a weed. Flowers are **dark red to purple**. Pods are long and narrow, 5-11 cm long. ***Macroptilium lathyroides*** (Phasey Bean) is an erect plant with a similar twisted keel, leaves are lanceolate.

G. tabacina



G. tomentella



M. atropurpureum

Rhynchosia minima var. ***minima*** (Rhynchosia – Fabaceae)

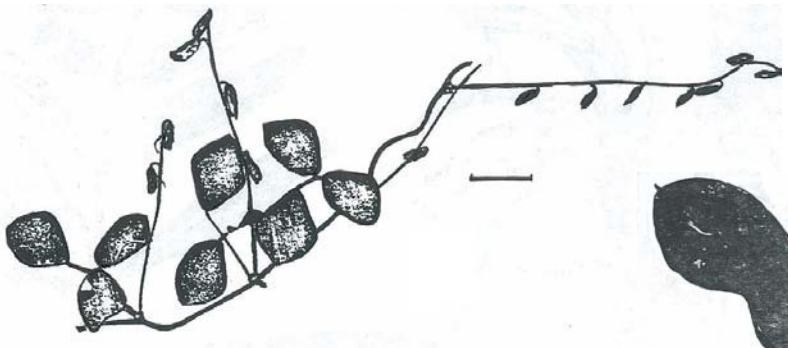
Rhynchosia, from ***rhynchos*** a Greek word for beak or snout, referring to the keel of the flower.

A small twining vine with rhomboid to ovate leaflets. Flowers with **yellow** petals, pods to 1.5 cm long.

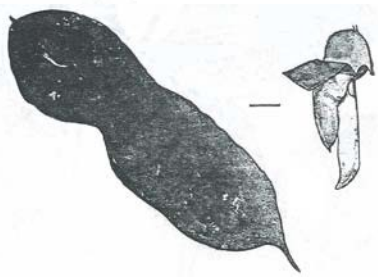
Mucuna gigantea (Velvet Bean, Burny Bean – Fabaceae)

Mucuna is a Brazilian name for this plant.

The **greenish-yellow** flowers from this tall, vigorous climber, may be found along the Nelly Bay track in April. The thick, flattened, winged pods are covered in irritant hairs. Seeds black, rounded, compressed to 2 cm diameter.



R. minima



M. gigantea

Canavalia rosea (Coastal Jack Bean – Fabaceae)

Canavalia, from a Malabar name, ***kanavali***, applied to one of the species.

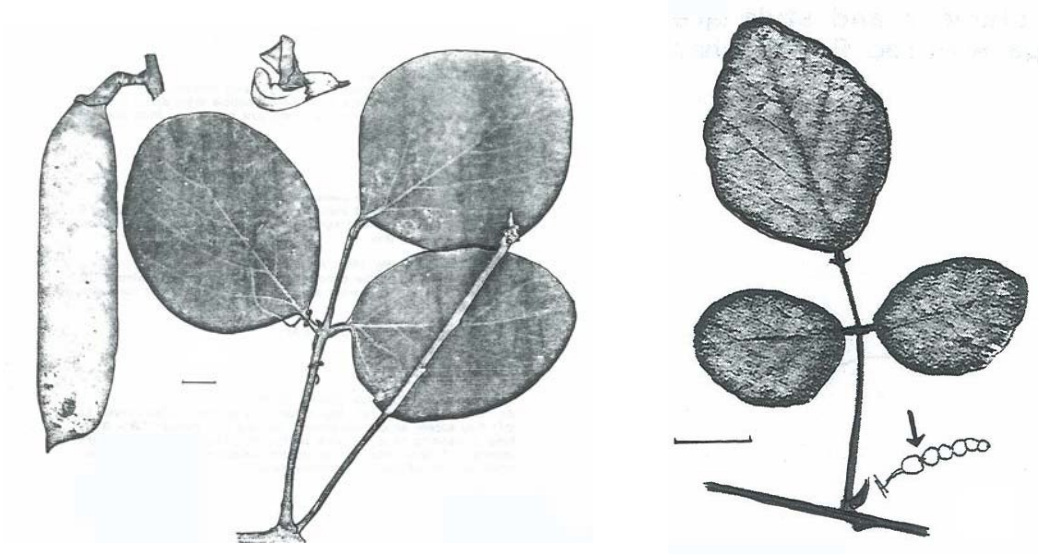
This vine with **pinkish-mauve** or sometimes **white** flowers is found growing on coastal dunes near the beach. Pods may be up to 15 cm long and 3 cm wide,

they may be cooked and eaten when immature. Flowering summer. ***Canavalia papuana*** (Wild Jack Bean) is not associated with dunes and the leaves are broadest below the middle unlike ***Canavalia rosea*** where the leaves are broadest about the middle and the apex is rounded not pointed, flowers **purple**.

Desmodium rhytidophyllum (Fabaceae)

Desmodium, from the Greek ***desmos*** – band, alluding to the stamens being fused at the base.

A procumbent, often twining herb, densely covered by spreading rusty hairs. Leaflet blade ovate to rhomboid, corolla **purple** to 6 mm long. Fruits with 2-7 individual segments (↑) each 2-3 mm long. Other species occur, see also **Group 6.B**.



C. rosea *D. rhytidophyllum*

GROUP 3.G Leaves with 5 or more leaflets; flowers pea-shaped, fruit a pod or legume.

Abrus precatorius (Crab's Eye, Gidee Gidee, Rosary Pea – Fabaceae)

Abrus appears to be of Arabic origin, but possibly from Greek, ***abros*** – dainty.

This thin-stemmed vine has 10-15 pairs of opposite, oblong leaflets per leaf. The flowers are **white to purple**. The pods open to reveal shiny, bright red seeds with a black patch at one end. These seeds contain abrin, an extremely toxic substance.

Clitoria ternatea (Butterfly Pea – Fabaceae)*

Clitoria, from the Greek ***cleitoris***, referring to the small keel, which Linnaeus thought resembled a clitoris.

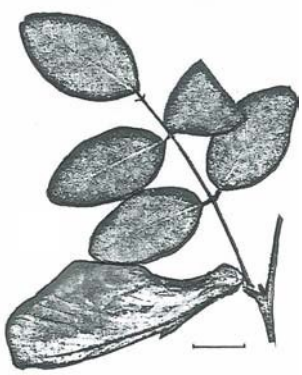
Leaflets 5-7; flowers large, back petal to about 5 cm long, single or in pairs, usually **blue** but **white** forms may be found. Flowering summer.

Derris trifoliata (Fabaceae)

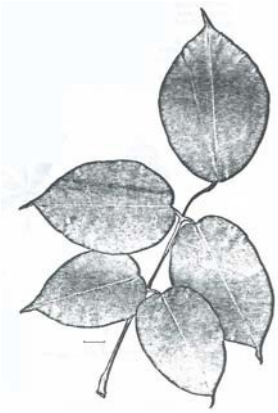
Derris from the Greek ***derris*** – leather covering, referring to the leathery pods.

A tall, woody climber usually found growing along stream banks or on rainforest margins. Leaflets 5-7, shiny, petiole dries dark-coloured. Flowers are borne in slender racemes, may be **white, pink or mauve**. The pods are thin and flat.

A. precatorius



C. ternatea



D. trifoliata

Vigna marina (Not illustrated – Fabaceae)

Vigna, named for Dominico Vigna (d.1647), Professor of Botany at Pisa, Italy.

This vine is similar to ***Canavalia*****,** but the flowers are **yellow**. This vine has not been recorded on the island but does occur on the nearby mainland along the foreshore.

GROUP 3.H Leaves opposite, compound.

Jasminum didymum subsp. ***racemosum*** (Native Jasmine, Slender Jasmine – Oleaceae)

Jasminum, this is the Latinized form of the Persian ***yasmin*****.**

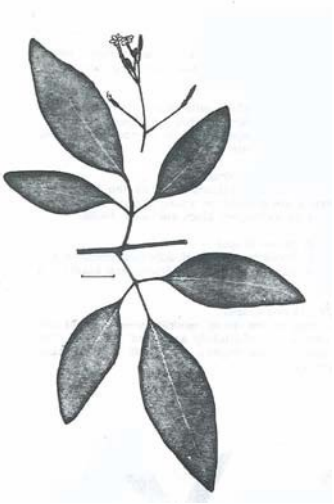
A climber, leaves with three leaflets, terminal leaflet is longer than the laterals. Flowers are **white** and fragrant; fruit succulent, globular and black. Flowering March to July.

Pandorea pandorana (Wonga Vine – Bignoniaceae)

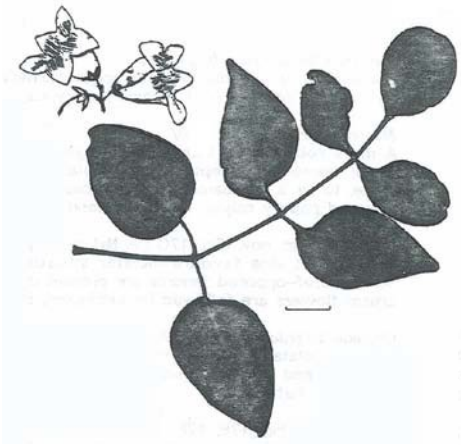
Pandorea**,** the Greek goddess, Pandora, was the first mortal woman of Greek mythology.

This very variable plant has opposite leaves with 3-13 leaflets. Juvenile leaves are much smaller than the mature leaves. The attractive clusters of bell-shaped, flowers are usually **whitish** with red to mauve markings. Fruit a capsule to 6 cm long, seeds flat with a more or less circular wing. Flowering July.

NOTE: ***Tribulus*** spp. (**Group 5.A**) may also key out here.



J. didymum



P. pandorana

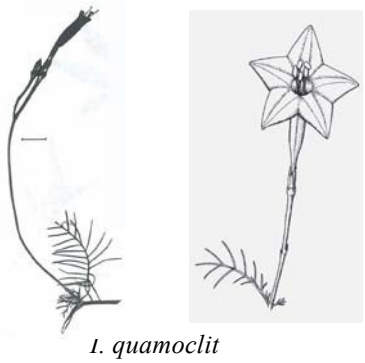
Tribulus sp.

GROUP 3.I Leaves alternate, compound or deeply dissected.

Ipomoea quamoclit (Star of Bethlehem - Convolvulaceae)*

Ipomoea, from the Greek ***ips*** – a worm, and ***homoios*** – resembling, named by Linnaeus in reference to the twining habit.

An introduced twiner, this annual has very deeply dissected leaves, so that they appear almost as compound leaves. Typically flowers **red**, tubular 1.5-3 cm long, expanding to 2 cm wide at the top; stamens and style are exserted. Fruit a capsule. Flowering March. ***Ipomoea hederifolia*** (Scarlet Creeper, Cardinal's Flower) another garden escapee with **red** flowers, has entire to 3-lobed leaves.



I. quamoclit

I. hederifolia

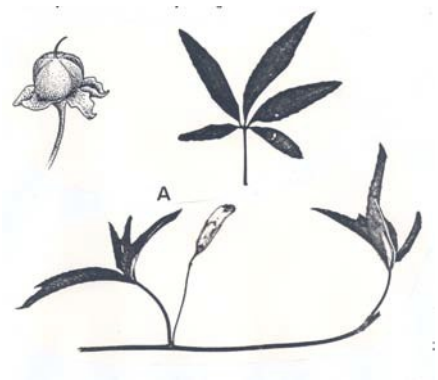
Distimake (Merremia) quinquefolius (Snake Vine – Convolvulaceae)

Merremia, named for the German naturalist Blasius Merrem, who died in 1824.

Leaves with 5-9 digitately arranged leaflets; flowers tubular, **white** about 1.5 cm diameter, fruit a small papery capsule. Flowering January.

Distimake (Merremia) dissectus (Snake Vine – Convolvulaceae)

A more robust vine than the preceding species, the stems are hairy, and the larger leaves are deeply and irregularly dissected. Flowers tubular, **white** to about 3 cm diameter, fruit a papery capsule surrounded by the enlarged papery calyx. Flowering January.



D. quinquefolius

D. dissectus

NOTE: ***Jacquemontia paniculata*** is a vine with a single style with linear stigmatic lobes, this species and several species of ***Ipomoea*** may also key to here, in the latter the stigmatic lobes are globose. These genera are vines in the Convolvulaceae, hence petals are fused and there is a thickened portion in the middle of each. (refer sketch of ***Ipomoea quamoclit*** above).

Tetrastigma thorsborneorum (Native Grape – Vitaceae)

Tetrastigma, referring to the 4 lobed stigma.

This robust vine favours moister situations such as the Nelly Bay scrub. The lateral leaflets are divided again, 'pedate' (↑) is the specific botanical term. Leaf-opposed tendrils are present on young shoots. The small, **cream** flowers are followed by astringent, black, fleshy fruits. ***Tetrastigma nitens***, with 3 leaflets lacking hairs, occurs in the Rollingstone Bay area.

Causonis trifolia (Native Grape – Vitaceae), formerly *Cayratia trifolia*

Causonis – origin unknown.

This vine with 3 usually pubescent leaflets, clings to trees by means of adhesive discs on the tips of the tendril branches, the latter are leaf-opposed (↑). Fruits are black, fleshy and somewhat flattened. ***Causonis japonica*** with pedate (i.e., the lateral leaflets are branched again) leaves and ribbed stems occurs in some of the closed forest areas.

Clematicissus opaca (Native Grape, formerly ***Cissus opaca*** – Vitaceae)

Cissus, from the Greek ***kissos*** – ivy, referring to the climbing habit and ***clematis*** a twig or branch, ***Clematicissus*** as it resembles both Ivy and Clematis in habit.

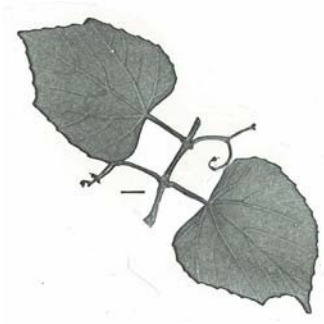
Like all the other native grapes on the island the tendrils are leaf-opposed (↑). Leaves with 3-5 digitately arranged leaflets, considerable variation in leaf size and shape exists. The fleshy, black fruits are very astringent.

T. thorsborneorum *Ca. trifolia* *Cl. opaca*

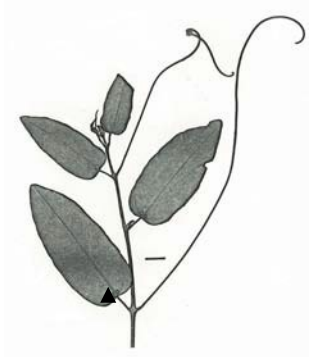
GROUP 3.J Leaves simple, margins entire, not lobed but base may be cordate or variations on that.

Cissus spp. (Native Grape – Vitaceae)

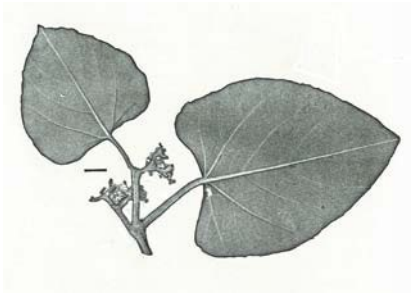
Woody vines climbing over trees and rocks, tendrils leaf-opposed. Small, yellowish-green flowers are followed by fleshy, black astringent fruits. ***Cissus cardiophylla***, has angular stems (Horseshoe Bay and other areas); ***Cissus oblonga*** has large domatia (↑), common at West Point; ***Cissus reniformis***, has a lot of mucilage in the rounded stems, leaves somewhat fleshy (West Point), shape on young growth may be highly variable.



C. cardiophylla



C. oblonga



C. reniformis

Stephania japonica (Tape Vine – Menispermaceae)

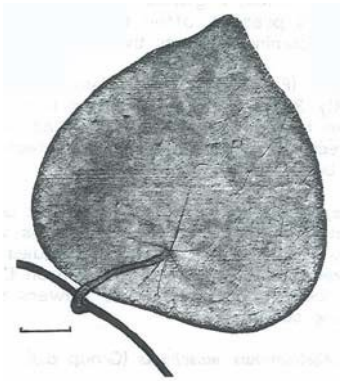
Stephania, from the Greek ***stephanos*** – crown, probably referring to the inflorescence. Leaves peltate; flowers **white** in dense clusters; fruits are red drupes to 5 mm long.

Pachygone ovata (Menispermaceae)

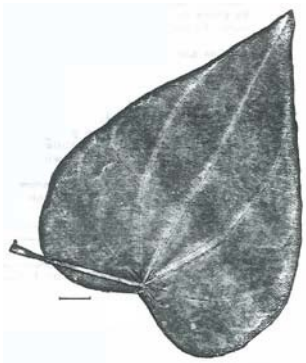
Pachygone, from the Greek ***pachys*** – thick, and ***gone*** – seed or generation. The palmately veined, ovate leaves, often with a cordate base, are hairy, chiefly on lower surface; flowers **greenish** to **pale yellow**, fruit a drupe blue. ***Pleogyne australis*** is a deciduous climber with fruit a red drupe, leaves are hairy on both surfaces.

Tinospora smilacina (Snake Vine – Menispermaceae)

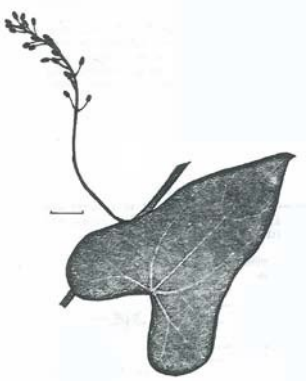
Tinospora, from the Greek ***tinos*** – very small, and ***sporos*** – seed, referring to the seeds. A glabrous vine with thin bark, leaves are usually cordate at the base, and palmately-veined. Brownish glandular patches – a form of domatia – are present in some of the vein axils on the lower surface of the leaf. Flowers in racemes, **white**; fruit red, ovoid to 1 cm long.



S. japonica



P. ovata



T. smilacina

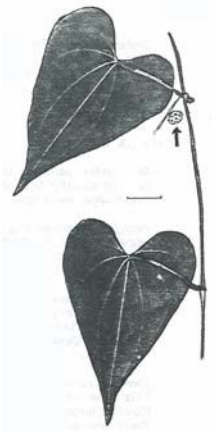
Dioscorea bulbifera (Air Potato – Dioscoreaceae)

Dioscorea, named for Dioscorides, Greek physician and botanist, 1st century AD. This vine is readily distinguished from ***Dioscorea transversa*** (Common Yam Vine) by the presence of the axillary bulbils (↑). The underground tubers were eaten by the aborigines after suitable preparation. Flowers small, unisexual. Fruits are papery capsules with three prominent wings.

Antigonon leptopus (Mexican Creeper – Polygonaceae)*

Antigonon, from the Greek ***anti*** – against, and ***gonia*** – angle, referring to the flexuose stems.

This attractive garden escape, has heart-shaped leaves with obvious veins and wavy margins. The inflorescence is a raceme terminating in a tendril; flowers bright **pink**. Flowering summer.



D. bulbifera

A. leptopus

Bonamia dietrichiana (Bonamia – Convolvulaceae)

Bonamia, named after Francois Bonami an 18th Century French botanist.

Vine, leaves ovate, softly pubescent, flowers **white** to 3.5 cm diameter, petals fused to form a broad funnel, 2 unequal stigmatic arms. Fruit a globose capsule to 1 cm diameter, surrounded by the papery sepals. Rare.

Trophis scandens (Burny Vine, syn. ***Malaisia*** – Moraceae)

Trophis, from the Greek ***trophe*** – nourishment, the leaves of some species used as fodder.

Woody climber with rough stems and rough leaves, male and female inflorescences on separate plants. Fruit a drupe, red to 8 mm long, several clustered on an expanded receptacle. Latex present.

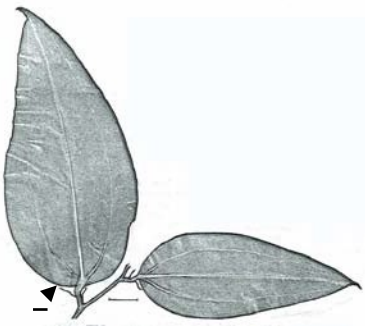
Smilax australis (Austral Sarsaparilla, Smilax – Smilacaceae)

Smilax is the Greek name for this plant.

This robust vine, chiefly associated with closed forest, usually has prickles on the older stems. The leaves have paired tendrils (↑) at their base and about 5 longitudinal veins per leaf. Flowers in umbels, **creamy**; these are followed by the fruit which are globular, black berries to 8 mm diameter.

B. dietrichiana

T. scandens



S. australis

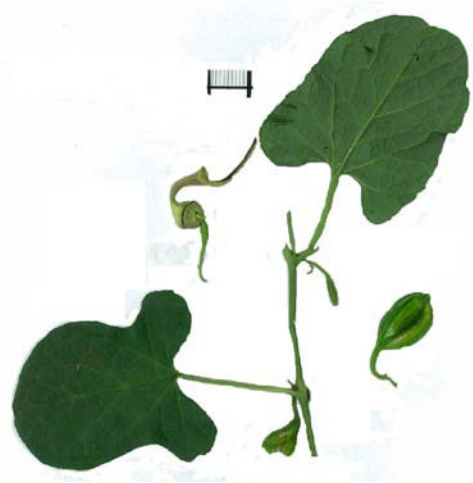
Aristolochia pubera (Aristolochiaceae)

Aristolochia, from the Greek ***aristos*** – best and from the Latin ***lochia*** – childbirth, referring to the shape of the flower resembling a pregnant woman.

Usually a creeping plant, stems may be softly hairy or pubescent to almost hairless; leaves highly variable in shape 1-13 cm long, 0.8-9 cm wide including basal lobes. Flowers solitary, limb **purplish-brown**; fruit a capsule, globose, 1-2.5 cm long, 1-1.3 cm diameter. Host for the Big Greasy butterfly.

Aristolochia thozetii (Aristolochiaceae)

A slender vine usually sparsely hairy, leaves highly variable, lower leaves broadly triangular, upper linear-lanceolate to linear to 16.5 cm long and 1.5 cm wide. Flowers solitary, limb **greenish** with purplish veins; fruit a capsule subglobose, to 1.8 cm long and 1.2 cm diameter. Host for the Big Greasy and Red-bodied Swallowtail butterflies.



A. pubera

A. thozetii

NOTE: See also ***Melodorum*** (**Group 8.N**)

GROUP 3.K Leaves lobed.

Passiflora aurantia (Red Passion Flower – Passifloraceae)

Passiflora, from the Latin ***passio*** – passion, and ***flos*** – flower, the early Spanish missionaries thought the flower resembled the implements of the Crucifixion.

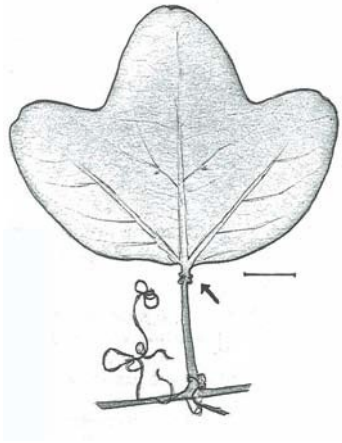
Leaves broadly 3-lobed, 2 glands (↑) are present near the top of the petiole. Tendril present, often tightly coiled. Flowers to about 10 cm diameter; **red** becoming white with age. Fruit pale green turning purplish.

Passiflora foetida (Stinking Passion Flower – Passifloraceae)*

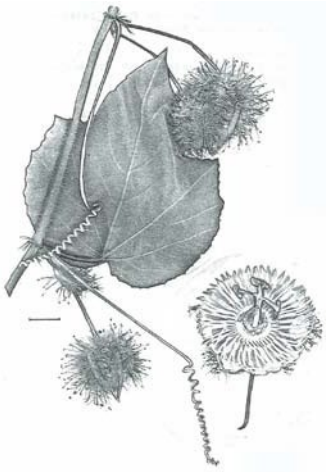
Leaves usually 3-lobed, pubescent, unpleasant odour often present, glands absent. Tendrils usually tightly coiled. Flowers **lilac to whitish**, to 5 cm diameter. Surrounding the yellow fruit are deeply dissected bracts (lacy) and bracteoles, which bear glandular hairs as do the leaves. Weed, fruits eaten by a variety of birds.

Passiflora suberosa (Corky Passion Flower – Passifloraceae)*

Leaves usually 3-lobed, tendrils lightly coiled, delicate; glands above the middle on the petiole (↑). Petals absent, corona **white to purple**; fruit dark purple to black. Weed. A subspeies is recognised.



P. aurantia



P. foetida

P. suberosa

Passiflora edulis (Not illustrated, Passion Fruit – Passifloraceae)*

Plants lack hairs, glands near top of petiole; petals **white**; fruit yellowish. This is the commercial passion fruit, some have escaped from gardens.

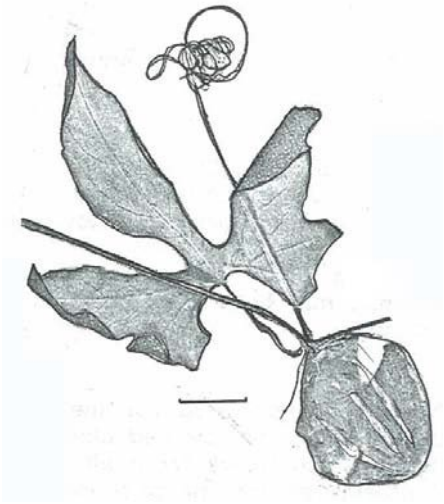
Diplocyclos palmatus (Native Bryony, Striped Cucumber – Cucurbitaceae)

Diplocyclos from the Greek ***diploos*** – double, and ***cyklos*** – circle, referring to the fruit markings.

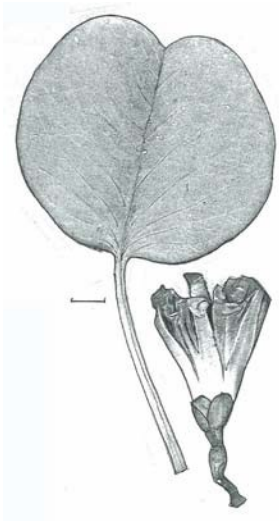
Leaves 3-5-lobed, tendrils usually branched, much twisted. Corolla **white** to **greenish**. Ripe fruit a berry, red with white longitudinal markings to 3 cm long.

Ipomoea pes-caprae subsp. ***brasiliensis*** (Goat's Foot Convolvulus, Beach Convolvulus – Convolvulaceae)

This vine, usually found on sand dunes and trailing along the beach, has broad bilobed leaves. The large, tubular flowers are **pink to purple**. Capsules globular, woody. Several other species occur on the Island, leaves and colour may vary but the flower will have a similar form.



D palmatus



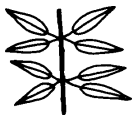
I. pes-caprae

NOTE: ***Abelmoschus moschatus*** (**Group 7.B**) may also key to here, as it is sometimes considered a vine.

KEY TO GROUP 4

Plants with a milky white sap present – latex. Although not all are poisonous, all should be treated with caution, at least initially. (May need to squeeze the broken end of the stem or petiole).

The plants in this group belong to the Apocynaceae, Euphorbiaceae, Moraceae, and Sapotaceae. Although an occasional vine in the Convolvulaceae which, has some watery/milky sap will key to here, please refer to **Group 3**. (**3.I, 3.J, 3.K**)

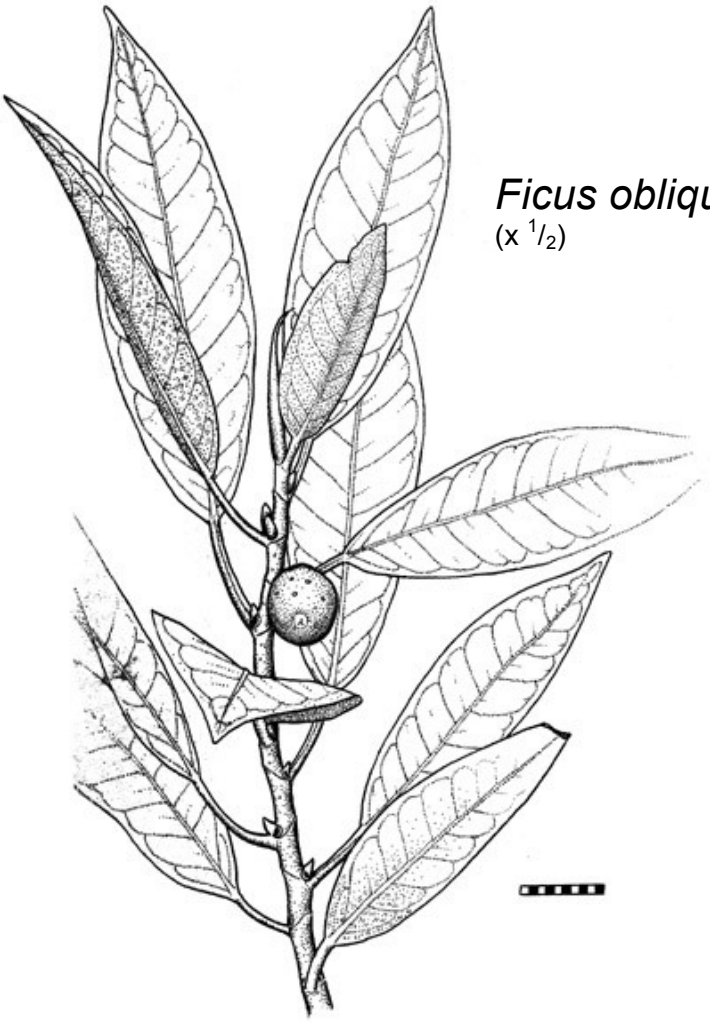
		
A. leaves alternate	B. leaves opposite	C. leaves whorled

1 Leaves alternate on the twigs (see sketch A), usually shrubs and trees, occasionally a woody vine or scrambler — go to **Group 4.A**

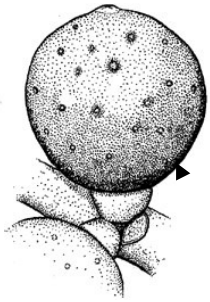
1* Leaves opposite (B) or whorled (C), i.e., more than 2 arising at the same level on the twigs — go to 2

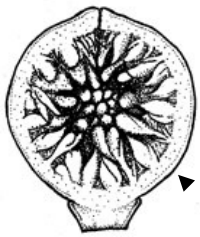
2 Herbs usually less than 60 cm tall — go to **Group 4.B**

2* Shrubs or trees usually taller than 1 m — go to **Group 4.C**

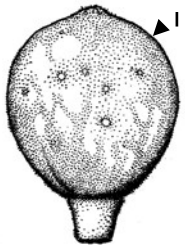


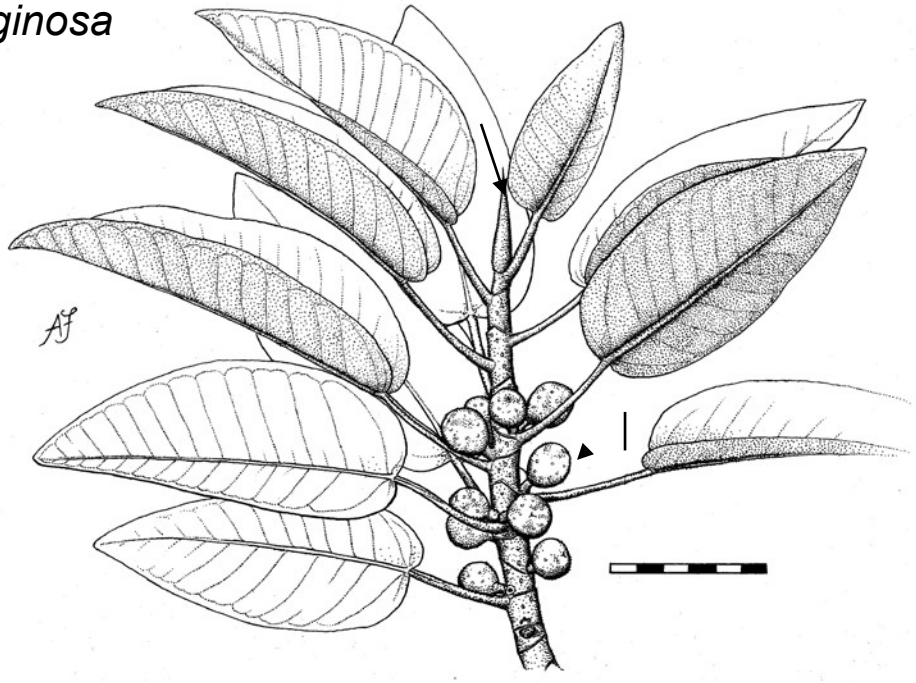
Ficus obliqua
(x $^1/_2$)





Ficus rubiginosa
(x $^1/_2$)





GROUP 4.A Leaves alternate, shrubs or trees, occasional vine (chiefly Moraceae, Sapotaceae).

Ficus spp. (Moraceae)

Ficus, the Latin word for the edible fig.

About 9 species have been recorded for the Island. Most, unless cultivated, will be found only in the dry rainforest areas or closed forest, as in Nelly Bay. They are distinguished by the latex which flows from all broken portions; the alternate usually leathery leaves; the prominent stipule (↑) which encloses the terminal bud and the "fig" (↑) or syconia. This fleshy receptacle bears the flowers on the inside; as the seeds mature the receptacle enlarges and often softens (Think of the edible fig!). Some of the common species are:

Ficus benghalensis (Banyan Tree – Moraceae)

Banyan, with large, broadly ovate leaves up to 30 x 20 cm, softly pubescent below, base is heart-shaped, stipules coloured, to 3 cm long. Figs paired, up to 2 cm diameter, at maturity orange to red in colour.

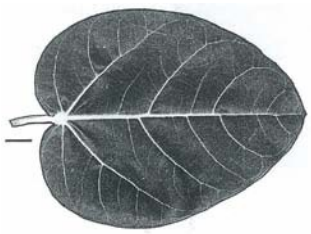
NOTE: Also recorded on the Island are, ***Ficus hispida,*** (Rough-leafed Fig) leaf margins indented and figs hanging down in bunches, green to yellow when ripe; and ***Ficus superba,*** margins smooth, figs stalked.

Ficus benjamina (Weeping Fig – Moraceae)

This tree is commonly found in parks, a strangler, aerial roots present; leaves dark green. Figs 10-12 mm diameter, red to black.

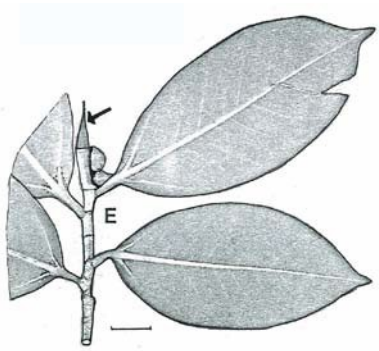
Ficus microcarpa (Small-fruited Fig – Moraceae)

Often cultivated, figs small, (to 10 mm diameter) usually reddish to black with small white spots, sessile. Aerial or strangling roots often present. Leaves often appear 3-veined at the base.



F. benghalensis

F. benjamina



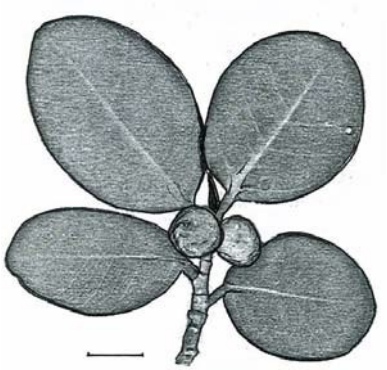
F. microcarpa

Ficus obliqua (Small-leafed Fig, Large Strangler Fig – Moraceae)

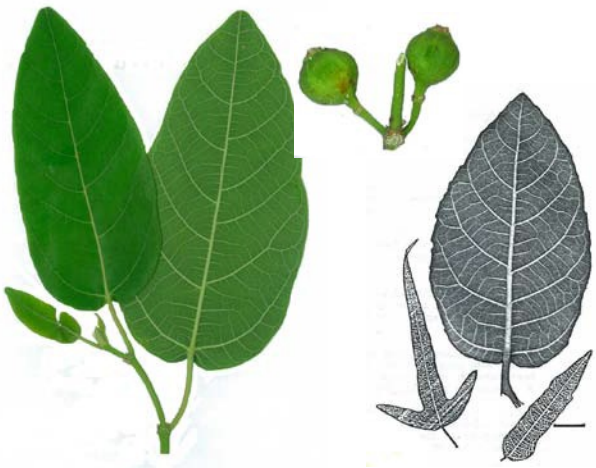
Figs to about 1 cm diameter, at maturity, yellowish-orange to orange-red, frequently with dark spots, usually paired along the branches. Upper surface of leaves glabrous, i.e., they lack hairs, leaves often larger than in illustration.

Ficus opposita (Sandpaper Fig – Moraceae)

Shrub or small tree. Juvenile leaves very variable in size and shape. Leaves are rough to the touch, hence the common name "sandpaper fig". Figs are stalked; reddish-brown is the most common colour at maturity, globular 10-20 mm diameter.



F. obliqua



F. opposita, fruit not mature

Ficus racemosa (Cluster Fig – Moraceae)

This tree, is easily recognized by the large clusters of figs borne on the stem (cauliflorous). Figs reddish, 3-3.5 x 3.5-4 cm. Stem appears rough because of the remains of these old inflorescences. Leaf margins smooth to 20 x 9 cm.

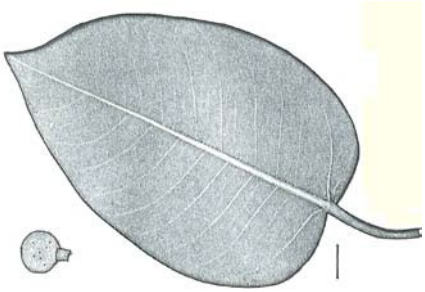
F. racemosa

Ficus rubiginosa (Rusty Fig, Rock Fig – Moraceae)

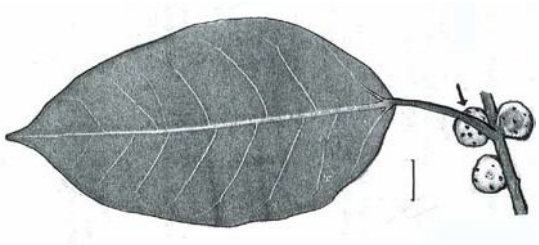
Often found growing over rocky outcrops, leaves thick often with some rusty hairs on the lower surface. Figs yellow turning red, often warty 7-18 mm diameter.

Ficus virens var. ***sublanceolata*** (White Fig, Native Banyan – Moraceae)

Leaves deciduous, usually a banyan or strangler. Figs paired to 12 mm diameter, greenish-white to brown with white or reddish spots, sessile.



F. rubiginosa



F. virens

NOTE: ***Trophis scandens*** a vine or scrambler may key to here, see **Group 3.J** for description. Another woody climber or scrambler with latex and long spines that has been collected in Gustav creek is ***Maclura cochinchinensis*** (Cockspur Thorn).

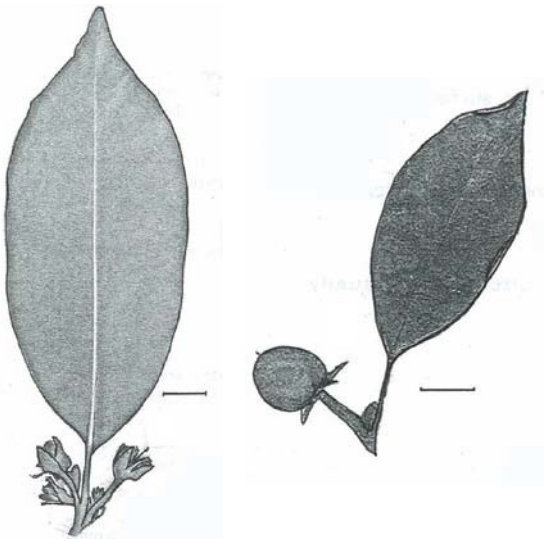
Mimusops elengi (Red Coondoo – Sapotaceae)

Mimusops, from the Greek ***mimo*** – an ape, and –***opsis*** – resemblance, the corolla-lobes are supposed to look like the face or upper body of an ape.

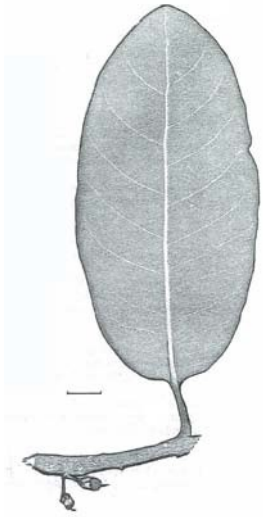
This shrub is usually found in beach scrubs; the leaves are quite variable in size, latex in dry weather may be hard to squeeze out. Flowering occurs in March, flowers to 8 mm long, cream, hairy, fragrant. Fruit fleshy, orange-red and more or less globular.

Planchonella pohlmaniana (Yellow Boxwood – Sapotaceae)

Planchonella, the diminutive of Planchonia a species named after the French Botanist J.E. Planchon, some similarity in the fruits of some species. Species in this genus have also been included in the genus ***Pouteria,*** which is a local word from Guiana, ***pourama pouteri***. Latex sparse, reddish hairs usually present on the stem and leaves. Fruits purplish to about 2.5 cm diameter. ***Sersalisia sericea*** (Wild Prune, formerly ***Pouteria sericea***) has firm leaves which appear rusty-grey because of hairs, often difficult to obtain latex. Refer **Group 8.L**.



M. elengi, left-flowers, right-fruit



P. pohlmaniana

Jatropha gossypiifolia (Bellyache Bush – Euphorbiaceae)*

Jatropha, from the Greek ***iatros*** – physician, and ***trophe*** – food, alluding to the medicinal properties of some species. Seeds of all species are toxic.

Shrub to 4m, may form dense thickets, sap milky becoming sticky as it dries; leaves lobed, when young purplish, prominent glandular-tipped hairs (↑) present on stem. Flowers red; fruit a 3-lobed capsule. Declared plant.

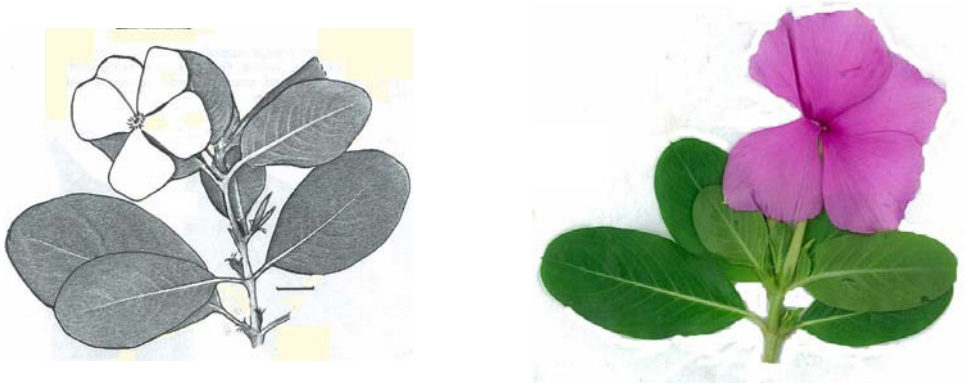
J. gossypiifolia

GROUP 4.B Herbs usually less than 60 cm tall. (**Apocynaceae, Euphorbiaceae**)

Catharanthus roseus (Pink Periwinkle – Apocynaceae)*

Catharanthus, from the Greek ***katharos*** – pure, and ***anthos*** – flower.

Erect herb to about 60 cm, often growing in sandy areas. Flower tubular, pink, mauve or white. A garden escapee originally from Madagascar.



C. roseus

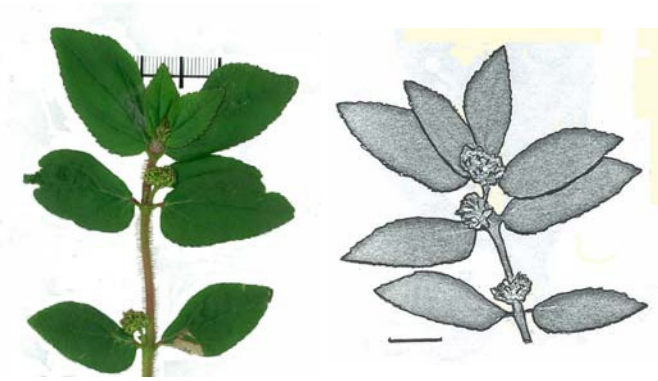
Euphorbia hirta (Asthma Plant – Euphorbiaceae, sometimes described as ***Chamaesyce hirta***)*

Euphorbia, from the Latin ***euphorbea*** – named for Euphorbius, a Greek physician in 1st Century AD who used the latex for medicinal purposes.

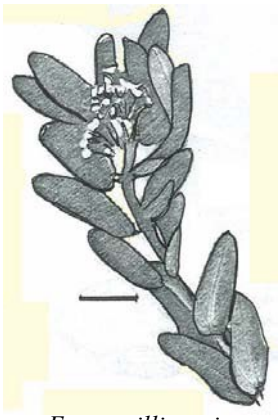
Plant with copious sap, leaves with serrated margins, hairs are present on the lower surface. Flowers clustered into leaf axils.

Euphorbia macgillivrayi (sometimes as ***Chamaesyce macgillivrai***– Euphorbiaceae)

An erect or procumbent herb, usually growing on dunes, the terminal or sub-terminal flowers are white. A similar species is ***Euphorbia pallens*** formerly part of ***E. atoto*** but this plant is more robust and the leaf margins are smooth and lack shallow serrations.

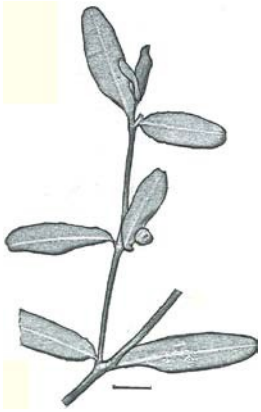


E.. hirta



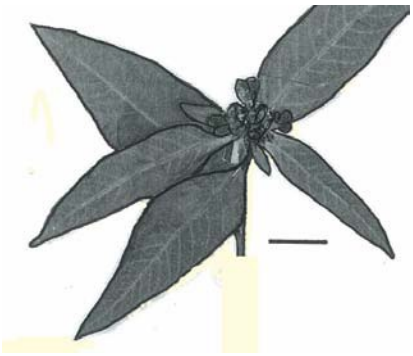
E .macgillivrayi

Euphorbia tannensis An erect herb often branched, leaves alternate towards the base of the stem, opposite above, usually found growing in sandy areas.
Euphorbia cyathophora (Dwarf Poinsettia, Painted Spurge)*. An annual to about 70 cm tall, lower leaves opposite but upper ones alternate, some of the uppermost leaves are partially red resembling the cultivated Poinsettia. Latex present.
Euphorbia heterophylla (Wild Poinsettia, Mole Plant, Milkweed)*. May grow to over 1 m tall, latex present. Leaves very variable from linear to fiddle-shaped, even on the one plant, upper leaves may have some small red blotches present.



E. tannensis

E. cyathophora

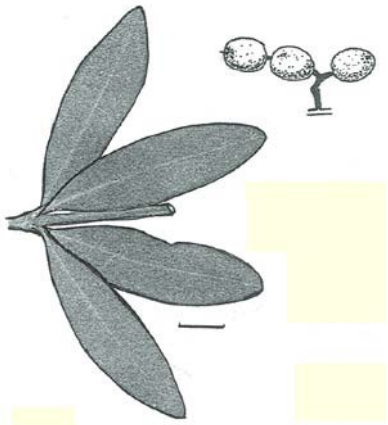


E. heterophylla

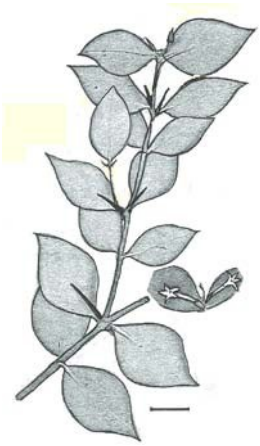
GROUP 4.C Shrubs or trees, rarely less than 1 m tall. (Apocynaceae).

Alyxia spicata (Chain Fruit – Apocynaceae)
Alyxia, from the Greek ***alysis*** – chain, referring to the fruit.
A scandent shrub with leaves in whorls of 3-4. The small **cream to yellowish** flowers are fragrant and occur in axillary spikes. The fruit consists of 1-2 glossy black segments or articles, chained together. A similar species is ***Alyxia grandis*** but here the fruit is orange – not recorded on the Island.

Carissa spinarum (ovata) (Currant Bush – Apocynaceae)
Carissa is an old Indian name from Sanskrit.
A spreading, much-branched shrub with sharply pointed leaves. The flowers are **white** and fragrant, and the ripe fruits are purplish-black and edible.



A. spicata



C. spinarum

Tabernaemontana orientalis (Eastern Gondola Bush) and ***Tabernaemontana pandacaqui*** (Banana Bush, Gondola Bush – Apocynaceae).

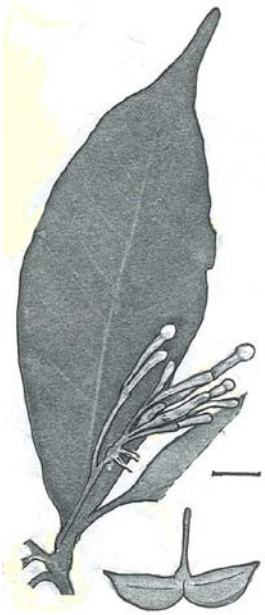
Tabernaemontana is the Latinized form of Jacob Theodore of Bergzaben, a German herbalist and physician who died in 1590.

These shrubs have **creamy** tubular flowers with 5 twisted petals, that are followed by a pair of orange boat-shaped fruits, each 1.5-3 cm long. The leaves of ***Tabernaemontana orientalis*** are glabrous or pubescent with lateral and tertiary veins prominent on the lower surface, whilst the leaves of ***Tabernaemontana pandacaqui*** are thinner, lack hairs and the veins are obscure on the lower surface.

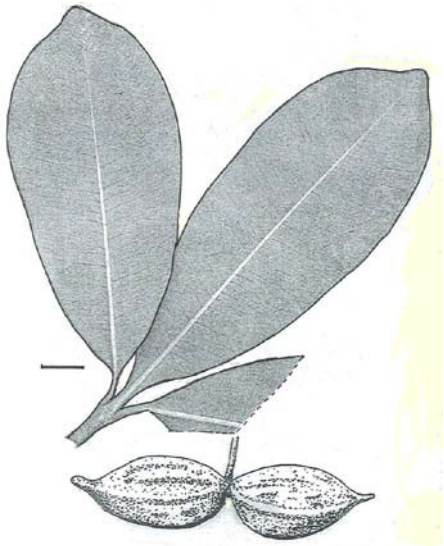
Ochrosia elliptica (Scarlet Wedge Apple – Apocynaceae)

Ochrosia, from ***ochros*** – pale yellow, referring to the colour of the flowers.

This small tree, often found on rocky headlands, has leaves in whorls of 4, rarely 3. The **white** or **cream** flowers to 17 mm wide are followed by the distinctive bright red fruits, usually paired, and elongated with a ridge along both sides, 5-6 cm long, 2-3 cm wide.



T. orientalis



O. elliptica

Nerium oleander (Oleander – Apocynaceae)*

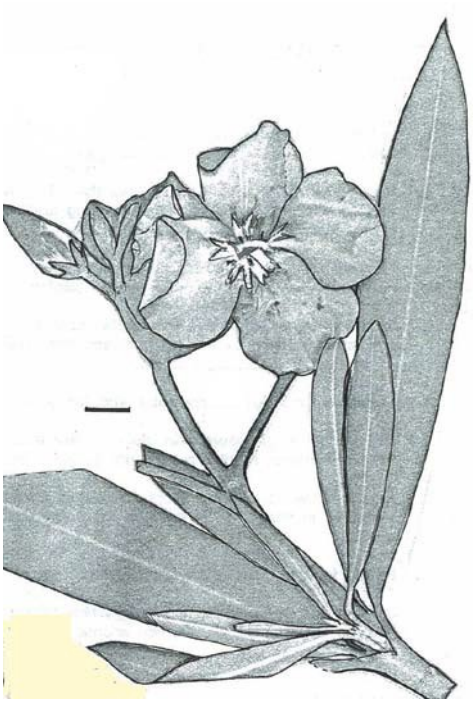
Nerium, from the Greek ***nerion*** meaning wet or fresh, probably referring to the sap. Dioscorides referred to this plant by this name.

Some specimens of this hardy plant have escaped from cultivation. Leaves leathery, arranged in pairs or whorls of three on the stem. Flowers are borne in clusters on each branch. The corolla has 5 spreading lobes and comes in a range of colours, from white to red and even yellow. Fruits are follicles up to about 23 cm long, which split to release numerous plumed seeds dispersed by wind and water. **ALL PARTS OF THIS PLANT ARE TOXIC**.

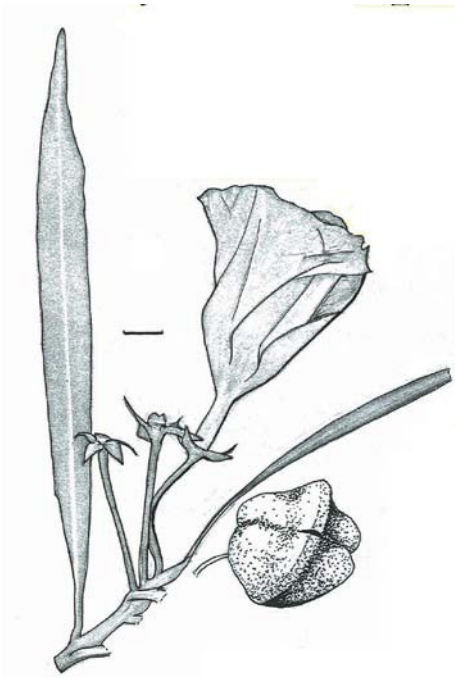
Cascabela thevetia (Yellow Oleander, Be-still-tree, Cook Tree, formerly ***Thevetia peruviana*** – Apocynaceae)*

Cascabela, meaning is obscure, could be derived from a Spanish word for 'little bell'. However Casca, according to Shakespeare, was initially a mild chap who turned nasty and stabbed Caesar!

Another garden escapee, the yellow flowers are bell-shaped; the angular, somewhat fleshy fruits are black when ripe. **ALL PARTS OF THIS HARDY PLANT ARE TOXIC**.



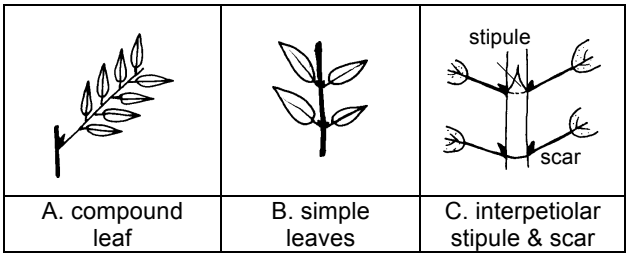
N. oleander



C. thevetia

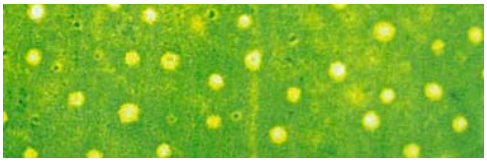
KEY TO GROUP 5

Leaves opposite, includes both simple and compound leaves.



A. compound leaf	B. simple leaves	C. interpetiolar stipule & scar

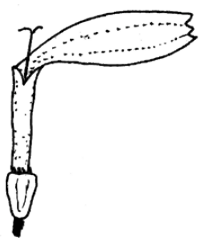
1	Leaves compound (see sketch A), i.e., divided into leaflets	go to **Group 5.A**
1*	Leaves simple (B) i.e., undivided, each leaf has a bud in the axil	go to 2
2	Herbs and subshrubs **usually less** than 1 m tall	go to 3
2*	Shrubs and trees, sometimes sprawling and scrambling, **rarely less** than 1 m high	go to 4
3	Flowers usually coloured, rarely purely white	go to **Group 5.B**
3*	Flowers white, or white with a yellow centre	go to **Group 5.C**
4	Stems with an interpetiolar scar or persistent stipule extending between the bases of the petioles (see sketch C) (Mainly Gardenia family-Rubiaceae)	go to 5
4*	Stems without an interpetiolar stipular scar	go to 6
5	Leaves hairy, and/or flowers in globular heads	go to **Group 5.D**
5*	Leaves without hairs, flowers not in globular heads	go to **Group 5.E**
5	Petals fused to form a short tube, 4-5-lobed, more or less irregular in shape; stems often squarish (Mainly Mint family – Lamiaceae)	go to **Group 5.F**
6*	Petals free from one another, not fused to form a tube; stems rounded	go to 7
7	Leaves with oil dots, aromatic smell when crushed, smell of eucalyptus oil or citrus (Eucalypt and Citrus families – Myrtaceae and Rutaceae)	go to **Group 5.G**



Large oil dots as seen through a good hand lens

7*	Leaves lacking oil dots, leaves lack a distinctive smell when crushed (crush leaf in a cupped hand to smell it)	go to **Group 5.H**

Sphagneticola trilobata Singapore Daisy



Ray floret (female)

Disc floret (hermaphrodite)

GROUP 5.A Leaves opposite and compound.

Tecoma stans (Tecoma, Yellow Bells – Bignoniaceae)*

Tecoma is from the Mexican name, ***tecomaxochitl***, said to be an earthenware vessel with a distinctive shape.

A garden escapee, this spreading shrub grows to 3-4 m tall, leaves opposite with 3-13 leaflets per leaf, usually about 5-7. The trumpet-shaped corolla, 4-5 cm long, is **yellow** with reddish lines in the throat. Fruit are long bean-like pods to 20 cm long with numerous seeds.

T. stans

Tribulus cistoides (Caltrop, Puncture Vine, Goat's Head Burr – Zygophyllaceae)

Tribulus, from ***tribolus*** – three-pointed, referring to the spiny fruit.

A prostrate herb with opposite leaves, each pair has one larger than the other, 5-8 pairs of leaflets per leaf. Flower > 2 cm diameter, petals 5, **yellow**; fruit a capsule 1-1.8 cm diameter with 5 ridges, 2 large spines near the top of each segment, smaller spines sometimes present.

Tribulus terrestris (Caltrop, Cat-head – Zygophyllaceae)

Similar in appearance but the flowers are only up to 1.5 cm diameter and the capsule is up to 1 cm diameter.

Vitex trifolia var. ***trifolia*** (Common Blue Vitex – Lamiaceae)

Vitex, from the Latin name used by Pliny for a tree known as Abraham's balm or the chaste tree.

This shrub or small tree, has opposite compound leaves usually with 3 leaflets per leaf, but occasionally only single i.e., simple leaves are present. The lower surface is white because of the hairs. Corolla is tubular, bilobed, **mauve** to **pale blue** to 1.5 cm long; fruits black, fleshy drupes, 4-6 mm diameter, seeds 4. Flowering summer.

T. cistoides

T. terrestris

V. trifolia var. *trifolia*

GROUP 5.B **Flowers usually coloured rarely pure white**. **Leaves opposite and simple**

NOTE: Those marked with an asterisk (#) before the name, sometimes have a white form.

Anisomeles moschata (Lamiaceae)

Anisomeles, from the Greek ***anisos*** **–** unequal, and ***melos*** – limb, referring to the shape of the flower.

An erect herb to 1 m tall, leaves pubescent, margins crenate/serrate, size can be quite variable. Corolla 2-lipped, varies in colour from **pink, to blue to pale purple**, 2 fertile stamens. Flowers are sometimes less clustered than those shown in the illustration.

Mesosphaerum suaveolens (Hyptis, Horehound, Mintweed – Lamiaceae)*

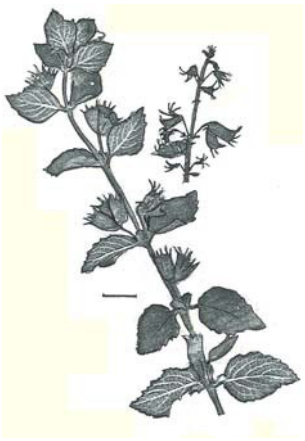
A strong smelling herb or subshrub, leaf margins crenate or serrate, glandular hairs present; Leaves strongly aromatic when crushed. Corolla 2-lipped, **blue to mauve**. Fruit dry separating into 4 nutlets, surrounded by the hairy calyx.

Stachytarpheta jamaicensis (Light Blue Snakeweed – Verbenaceae)

Stachytarpheta, from ***stachys*** – spike, and ***tarphys*** – thick, referring to the thickened spike.

Herb to 1.2 m tall, flower embedded in the rachis of the long thick, terminal spike; the cylindrical corolla is bent and has **blue** spreading lobes. Fruit dry, a nut separating into 2 sections. ***Stachytarpheta cayennensis*** has **dark blue** flowers, not recorded for the island. ***Stachytarpheta mutabilis*** is a garden escapee with red to pink flowers.

A. moschata



M.. suaveolens

S. jamaicensis

#***Spermacoce brachystema*** (Rubiaceae)

Spermacoce, from the Greek ***sperma*** – seed, and ***acoce*** – point, the fruit has 2 points.

Herb to 60 cm tall, stems bluish-mauve, leaves more or less sessile. Flowers in dense clusters, corolla **blue or whitish**. Fruit a capsule breaking into 2 valves.

#***Rostellularia adscendens*** (Rubiaceae)

Rostellularia, Latin ***rostellum*** – beak, the name refers to either the hooks associated with the seeds or the appendage on the lower anthers.

Herb often up to 40 cm tall, flowers in terminal spikes, corolla 2-lipped, mostly **mauve**. This species is highly variable particularly with respect to leaves and to a lesser extent flower colour. There are numerous subspecies.

S. brachystema

R. adscendens note variation in leaf size

Ageratum houstonianum (Blue Billygoat Weed – Asteraceae)*

Ageratum, from the Greek ***a*** – without, and ***geras*** – age, referring to the fact that the petals retain their colour for a long time.

Herb to 1 m tall, stems and leaves are softly hairy, glandular hairs on lower leaf surface. Flowers in dense heads, **blue**, eventually fading with age. Two confusing species not yet recorded on the Island are: ***Ageratum conyzoides*** – in this species the involucral bracts lack hairs; ***Praxelis clematidea***, this species has the margins of the leaves toothed rather than scalloped or crenate and there is a pungent smell.

Acmella grandiflora (Asteraceae)

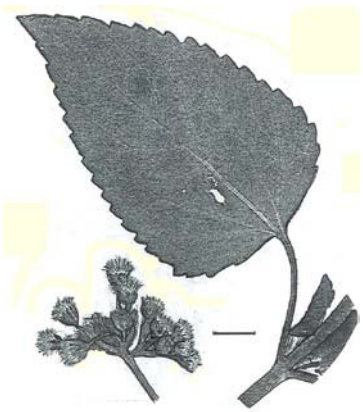
Acmella, from the Singhalese name for a similar plant.

Herb with opposite simple leaves, stems smooth, lacking rigid hairs, leaf margins sometimes shallowly toothed. Inflorescence solitary, daisy-like, ray florets **yellow** and radiating out from the centre. The yellow disc florets are borne in the centre of the inflorescence on the cone-like receptacle. In a species with a similar appearance ***Apowollastonia spilanthoides***, the stems have rigid hairs and the receptacle is more or less flat. Pappus absent in both species or reduced to 1-3 short bristles.

Sphagneticola trilobata (Singapore Daisy, formerly ***Wedelia trilobata*** – Asteraceae)*

Sphagneticola, probably referring to its habit of forming a mat.

A creeping plant, rooting at nodes, leaves opposite and simple 8-9 cm long, glossy green above, margins with several teeth, veins prominent. Flowers are daisy-like up to 3 cm diameter, both ray and disk florets **yellow**. Prefers moist situations, classed as a 'plant of concern'.



A. houstonianum

A. grandiflora

S. trilobata

#***Pseuderanthemum variable*** (Love Flower, Pastel Flower – Acanthaceae)

Pseuderanthemum, this name means that it is not the closely related genus ***Eranthemum***.

An erect herb to about 30 cm tall, the stems arise from a rhizome; leaves opposite and simple to 7 cm long and 4 cm wide, lanceolate. Flowers in a raceme, **pink**, **mauve** or if **white** then usually with coloured markings. Sticky hairs may be present on the flowers. Fruit a capsule to 1.8 cm long.

Hypoestes floribunda (Acanthaceae)

Hypoestes, from ***hypos*** – under, and ***estia*** – house, the bracts enclose the calyx.

Erect herb to 1 m; leaves opposite and simple, lanceolate to broadly lanceolate to 9 cm long. Corolla 2-lipped, 1.5-2 cm long, **mauve to purple,** large petal is 3-lobed. Fruit an elongated capsule 9-12 mm long.

P. variable

H. floribunda

Hypericum gramineum (Small St. John's Wort – Clusiaceae)

Hypericum, from the Greco-Latin word for St. John's Wort, ***hypericon.***

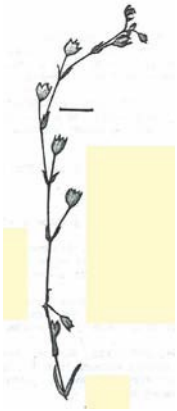
Slender herb to about 4o cm tall, leaves opposite, sessile; flowers bright **orange-yellow**, 5 free petals, many stamens. Fruit a 3-valved capsule to 7 mm long, surrounded by the reddish bracts.

Trichodesma zeylanicum (Camel Bush, Cattle Bush – Boraginaceae)

Trichodesma, from the Greek ***thrix*** – hair, and ***diadema*** – crown, referring to the spiny hair clusters at the tips of the leaves.

Coarse herb to 1 m, all parts covered with stiff hairs (HANDLE WITH CARE). Lower leaves opposite, upper ones alternate. Flowers **blue to mauve**. Petals 5

fused, lobes spreading to 8 mm wide. Fruit dry of 4 mericarps, brown to black, enclosed in the calyx.



H. gramineum

T. zeylanicum

Boerhavia burbidgeana (Tar Vine – Nyctaginaceae)

Boerhavia, named for Boerhaave (1668-1738), Dutch Professor of medicine and botany. Prostrate viscid herb with small pale **pinkish** flowers, peduncle filiform to 1.5 cm long bearing only 1 to a few flowers.

Another species recorded is ***Boerhavia dominii*** with a rigid peduncle to 3 cm long, rather than filiform and the flowers are more numerous and **dark pink**. Several other species have been collected but all have the same type of flower and the elongated fruit has glandular hairs.

NOTE: See also ***Striga curviflora*** (**Group 7.D**) and ***Vitex rotundifolia*** (**Group 5.F**).

GROUP 5.C Flowers white, or white with a yellow centre.

Scoparia dulcis (Scoparia – Plantaginaceae/Scrophulariaceae)*

Scoparia, from the Latin ***scoparius*** – a form of broom.

A native of tropical America, this weed has leaves either opposite or in whorls of 3. leaves lanceolate with serrated margins. The flowers have a **white**, deeply 4-lobed corolla, stamens 4. Fruit a globular capsule.

B. burbidgeana left and *B. dominii* right

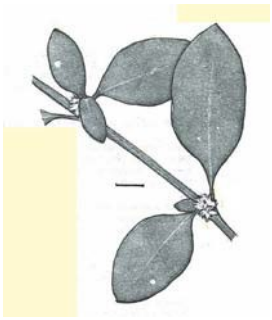
S. dulcis

Alternanthera ficoidea (Joyweed, formerly ***Alternanthera. bettzeckiana*** – Amaranthaceae)*

Alternanthera, from the Latin ***alternus*** – alternate, and ***anthera*** – anther, most species have sterile anthers alternating with fertile ones.

This sprawling to semi-erect herb is a native of Brazil, common in gardens and disturbed areas. Leaves are opposite oblong to lanceolate and sparsely hairy. Flowers clustered in leaf axils, white bracts and bracteoles papery, perianth **whitish**, stamens 4-5.

Alternanthera pungens (Khaki Weed)*, plant prostrate, spreading to about 60 cm, stems softly hairy, often rooting at the nodes. Bracts and bracteoles with sharp pungent points; perianth **whitish**. Plant spreads by these sharp points getting caught in shoes, tyres etc.



A. ficoidea

A. pungens

Gomphrena celosioides (Gomphrena Weed – Amaranthaceae)*

Gomphrena, a version of the name used by Pliny for a kind of Amaranth.

A herb whose leaves and stems bear whitish hairs, leaves 2-5 cm long. Flowers in a subglobose spike, 1-4 cm long, bracteoles papery, perianth **white** and woolly on the outer surface. Native of South America.

Tridax procumbens (Tridax Daisy – Asteraceae)*

Tridax, name used by Theophrastus for lettuce.

A decumbent herb often rooting at the nodes. Flower heads on long peduncles, outer ray flowers **white** to pale cream, central flowers yellow. Pappus of long plumose bristles. Introduced.

G. celosioides

T. procumbens

Richardia brasiliensis (White Eye – Rubiaceae)*

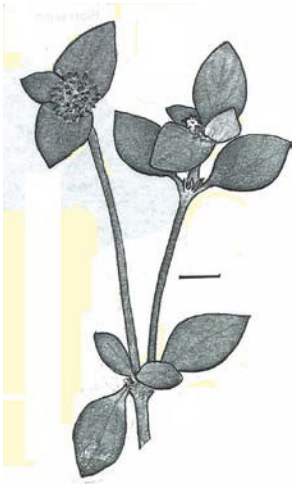
Richardia, named by Linnaeus for Richard Richardson (1663-1711).

This semi-prostrate herb has small white flowers clustered in the axils of the leaves. The 6 **white** petals are fused to form a tube with lobes spreading at the top. Capsule splits vertically, in ***Mitracarpus hirtus**** the capsule splits horizontally around the middle.

Oldenlandia corymbosa (Oldenlandia – Rubiaceae)

Oldenlandia, named after Henrik Oldenland (d.1761) a Danish naturalist in South Africa.

Small herb to 30 cm tall, much branched, leaves opposite and decussate, narrow; flowers small, 1-7 per axil, **white**, petals and stamens 4. A common garden weed.



R.. brasiliensis

O. corymbosa

Pimelea cornucopiae (Northern Riceflower – Thymelaeaceae)

Previously included under *Thecanthes*.

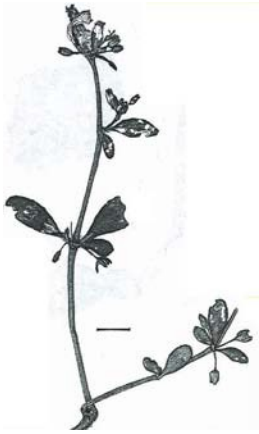
Erect herb to 40 cm tall, flowers are grouped into a terminal cluster surrounded by 4 involucral bracts (↑), perianth is **white**, the 2 stamens are orange.

Glinus oppositifolius (Molluginaceae)

Glinus, from the Greek word ***glinos*** meaning 'sweet juice'.

A semi-prostrate herb with opposite or whorled leaves, occasionally some are alternate; the flowers are **white** with a pink tinge; they are clustered in the leaf axils. Fruit a capsule, seeds numerous.

P. cornucopiae



G. oppositifolius

GROUP 5.D Leaves hairy, or flowers in globular heads (all Rubiaceae).

Larsenaikia ochreata (Native Gardenia – Rubiaceae)

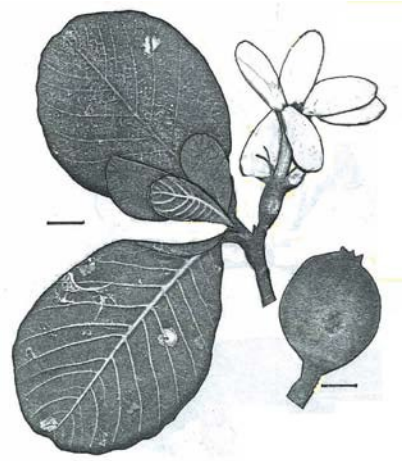
Larsenaikea, named for Professor Kai Larsen, a botanical collector in Thailand.

Shrub usually 3-8 m tall, however, plants on the island are rarely taller than 5 m; leaves softly hairy, broad, veins prominent, small domatia may be present on the underside of the leaf. Flowers with 5-6 petals, **white to yellowish**, fragrant, ovary inferior. Fruit ovoid, yellowish-green, large to 5 x 3 cm.

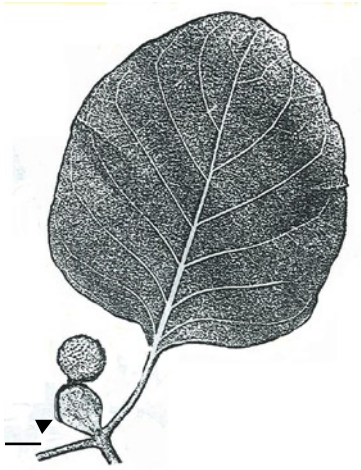
Nauclea orientalis (Leichhardt Tree – Rubiaceae)

Nauclea, from the Greek ***naus*** – ship, and ***kleio*** – close, the fruit cells resemble a ship's hull!

Tall tree, large stipules at the base of leaf stalks (↑) to 3-4 cm long, some red glands on inside of each stipule near the base; leaves to 30 cm long. Flowers, grouped into a globular head about 3 cm wide, petals **yellow** with white stamens, ovary inferior. Fruit soft, yellowish-brown, globular, 3-4 cm diameter. Flowering spring and early summer.



L. ochreata



N. orientalis

Morinda citrifolia (Great Morinda, Cheese Fruit, Noni – Rubiaceae)

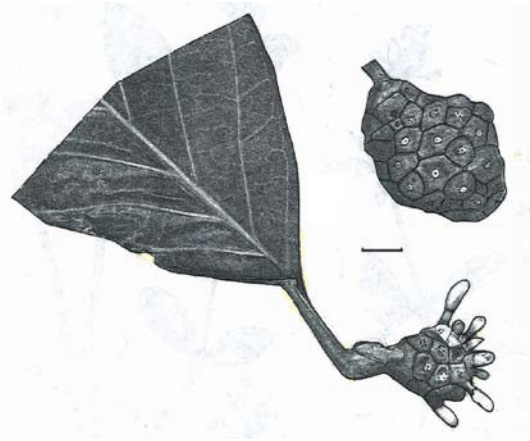
Morinda, from the Greek ***moron*** – mulberry, and ***inda*** – Indian.

Small tree often growing on dune systems, leaves usually 10-30 cm long; veins and midrib prominent. Flowers with a tubular 5-lobed corolla, **white to cream** with their bases fused together. The fruit is an irregularly shaped aggregate fruit, 4-7 cm long, 3-4 cm wide, fleshy, creamy-yellow; powerful smell when ripe, edible, high vitamin C content.

Timonius timon (Tim Tam Tree – Rubiaceae)

Timonius timon is an Ambonese name for a plant with black bark.

Shrub or small tree, leaves pubescent, often silky when young. Domatia (small pouches) (↑) present. Corolla **white**, 4-10 lobes, silky pubescent, ovary inferior. Fruit greenish, globular hairy to 13 mm diameter, occasionally larger. Flowering May to November.



M. citrifolia

T. timon

GROUP 5.E Leaves without hairs, flowers not in globular heads (mostly Rubiaceae). Ovary inferior.

Coelospermum reticulatm (Medicine Bush – Rubiaceae)

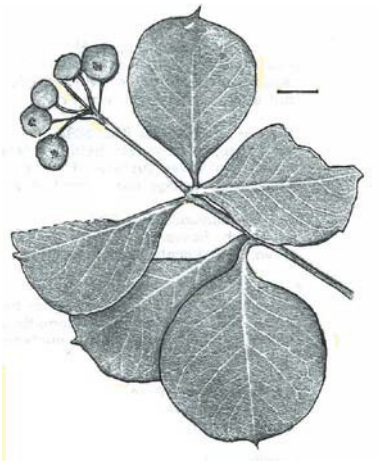
Previously ***Pogonolobus,*** from the Greek ***pogon*** – beard, and ***lobus*** – lobed.

A shrub sometimes scrambling, leaves harsh when touched, yellowish-green, veins prominent, particularly when dry. Flowers with a tubular corolla, **white**, clustered, fragrant, ovary inferior; fruit fleshy, black when ripe, less than 1 cm diameter.

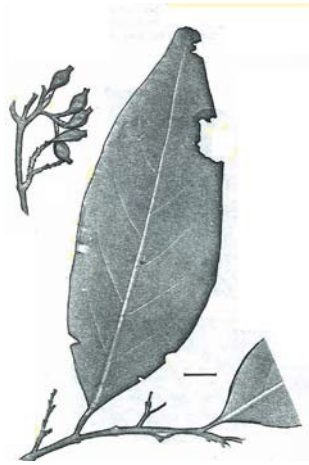
Aidia racemosa (Archer River Cherry – Rubiaceae)

Aidia, from Greek words meaning it is separated from another similar genus ***Randia.***

Shrubs or small tree 4-15 m tall, leaves opposite occasional one leaf of the pair is missing, to 19 cm long, 7 cm wide, often with wavy margins. Flowers **white to cream**, fragrant. Borne in clusters on one side of the branch. Ovary inferior; fruit fleshy to 1 cm diameter, red to reddish-brown at maturity. Flowering November.



C. reticulatus



A. racemosa

Ixora timorensis (Ixora, formerly ***Ixora klanderana*** – Rubiaceae)

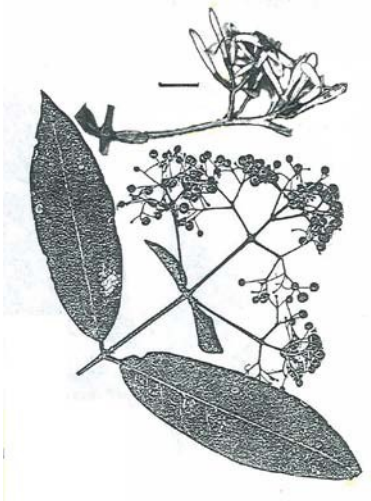
Ixora, named for a Malabar deity to whom flowers were offered.

Shrub or small tree, leaves opposite, simple, to 21 cm long, and 3-5 sometimes to 9 cm wide. Flowers in loose heads, perfumed, petals 4, **white to cream**, ovary inferior; fruit fleshy, globular, black to 1 cm diameter, edible.

Pavetta australiensis (Pavetta – Rubiaceae)

Pavetta, a Sinhalese name for a species of this genus.

A shrub or small tree, leaves opposite, simple, the hairy stipules completely encircle the twig between the pair of leaves. Flowers weakly perfumed, petals 4, fused to form a tube up to about 1.5 cm long with spreading lobes, **white**, ovary inferior; fruit fleshy globular, 5-6 mm diameter, black when ripe. Flowering in November.



I. timorensis, habit x 1/2

P. australiensis

Psydrax attenuata (formerly ***Canthium attenuatum*** – Rubiaceae)

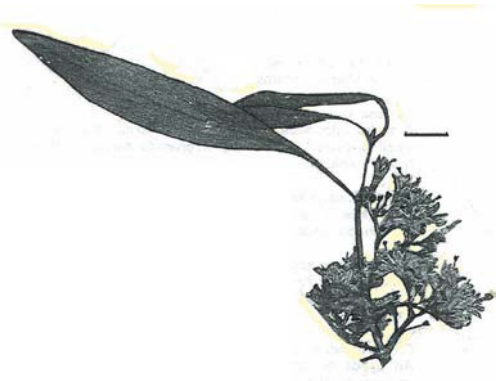
Psydrax from the Greek ***pseudein*** – to lie; ***Canthium***, from a Malay word ***canti***. First described from Malacca.

Shrub with leaves to 12 cm long, veins prominent when dry, laterals forming an acute angle with the midrib. Flowers with a **white** corolla, lobes 4-5, ovary inferior; fruit compressed about 5 mm long, black when ripe.

Cyclophyllum coprosmoides var. ***spathulatum*** (Supplejack – Rubiaceae)

Cyclophyllum, from the Greek ***cyclo*** – circular, and ***phyllus*** – leaved.

Tall shrub, leaves pale on lower surface to 10 cm long, firm, domatia sometimes present. Flowers several per axil, corolla **white to cream**, lobes 5; fruit globular to compressed, orange-red at maturity, often bilobed.



P. attenuata

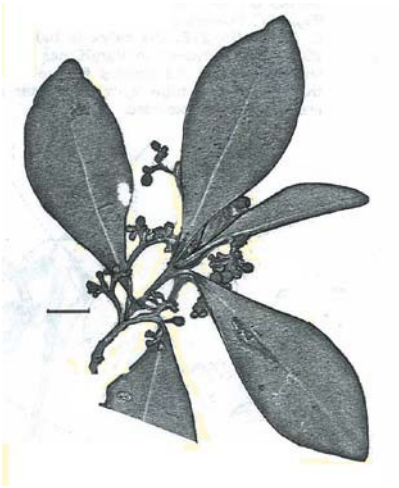
C. coprosmoides var. *spathulatum*

Psydrax odorata forma ***australiana***(Sweet Susie, Stiff Canthium, formerly ***Canthium odoratum*** – Rubiaceae)

Tall shrub to about 5 m, occasionally taller, leaves opposite, ovate to obovate to 8 x 4 cm, the upper surface of the leaves shiny and dark green, 1-2 domatia as small pits sometimes present. Stipules may be resinous. Flowers small, corolla **white**, petals 4; fruit black at maturity, 5-6 mm diameter.

Psydrax odorata forma ***foveolata***. (Rubiaceae)

This tall shrub or small tree occurs in the scrub behind Nelly Bay. Leaves to 17 cm long, 2-3 large domatia present, these are usually seen as large raised bumps on the upper surface (↑). Flowers **white**, fragrant, flowering in July.



P. odorata forma *australiana*

P. odorata forma *foveolata*

Psychotria dallachiana*, *Psychotria poliostemma, and ***Psychotria fitzalanii*** (Rubiaceae)

Psychotria, from ***psyche*** – life, many species have medicinal properties.

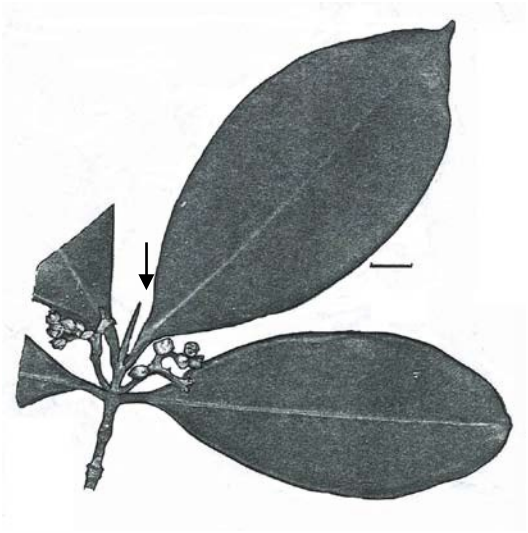
Shrubs or small trees, leaves opposite to 12 cm long, stipules bifid at apex. Flowers with a **white to cream** corolla, tube short, 2-3 mm long. The fruit is pale-coloured, fleshy, often ribbed, usually with 2 seeds per fruit. Lateral veins visible in fresh leaves of ***Psychotria poliostemma***, obscure in ***Psychotria dallachiana*** and ***Psychotria fitzalanii***. In ***P. dallachiana*** the petiole is channeled on the upper surface and the fruit is 8-13 mm diameter; in ***P. fitzalanii***, the petiole is flat on upper surface and the fruit is 5-7 mm diameter.

Carallia brachiata (Freshwater Mangrove, Corkwood – Rhizophoraceae)

Carallia, from an Indian name, ***karalli***.

Tree with leathery leaves usually found along creeks but not in mangroves. Leaves opposite to 12 x 7 cm, stipules (↑) sheath the terminal bud. Flowers clustered small, to 4 mm long, petals 6-7, **greenish**, stamens twice as many as petals. Fruit a berry with persistent calyx lobes at apex, turning red then black when ripe, 8-9 mm diameter.

P. poliostemma



C. brachiata

GROUP 5.F **Flowers irregular in shape, petals fused to form a corolla tube, lobes 4-5, stems often squarish in cross section (mostly Lamiaceae old family name is Labiatae). Ovary superior.**

Lantana camara (Lantana – Verbenaceae)*

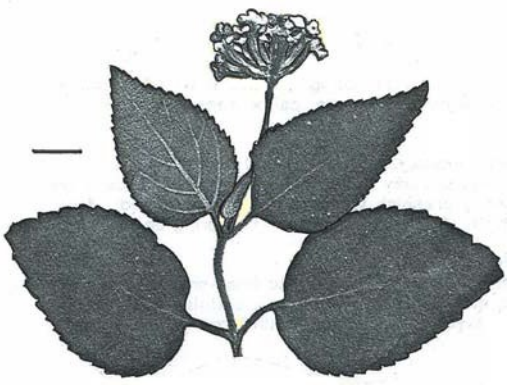
Lantana, because it has a superficial resemblance to another plant, ***Viburnum***.

A garden escape, this scrambling shrub has prickles on the arching canes, and the leaf margins are crenate-serrate. Flowers with one petal slightly larger than the others, colours various, from **pink, orange to red**. Fruit black at maturity. A small leafed species grown as ground cover in gardens has occasionally escaped!

Vitex rotundifolia (Lamiaceae)

Vitex, from a Latin name used by Pliny.

A prostrate to erect shrub to 50 cm tall, often found near beaches. Leaves simple to about 3 cm long, whitish on the lower surface because of hairs. Flowers **mauve** to 1.5 cm long bilobed; fruit black, berry to 6 mm diameter, seeds 4.



L. camara

V. rotundifolia

Clerodendrum spp. (Lamiaceae)

Clerodendrum, from the Greek ***kleros*** – chance or turn, and ***dendron*** – tree, referring to the variable medicinal properties of some species.

Shrubs. Inflorescence terminal or sometimes axillary, corolla often has a long tube, the 4 stamens are exserted and the calyx expands after flowering and is

usually larger than the fruit which is fleshy and is often a contrasting colour to the calyx. All species frequently have distorted flowers, so that the corolla tube is much shorter and broader than normal, and the stamens are not always exserted. Many have an interesting pollination mechanism. The style hangs to one side while the stamens are upright in the centre, when they have shed their pollen then the style and it's stigma take centre place, thus preventing self-pollination..

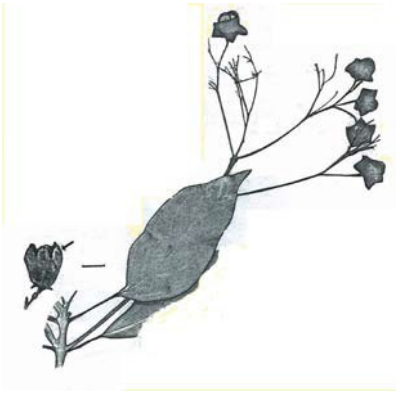
Clerodendrum heterophyllum forma ***baueri*** is a low much branched shrub which flowers in March. It has small **white** flowers less than 1 cm long, calyx shortly toothed. Corolla white to 7 mm long, stamens purple to 2 cm long. Fruit about 7 mm diameter, black when dry, slightly lobed.

Clerodendrum floribundum (Lollybush) Flowers about April. Leaves to 17 cm long. Corolla-tube to 3 cm long, **white**, stamens to 3.5 cm long often shorter. Fruit is purple to black, 5-10 mm diameter sitting on the enlarged (to 2 cm diameter) red calyx looking like waxy petals.

Clerodendrum inerme (Snakewood, Mangrove Clerodendrum) shrub to 5 m tall, sometimes scrambling, leaves usually 4-10 cm long. Flowers with calyx barely toothed, corolla **white**, tube to 4 cm long stamens purplish to 4 cm long. Fruit distinctly 4-lobed up to 2 cm long, dark brown at maturity long. Often found in dune vegetation.

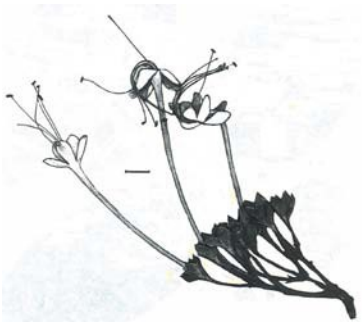
Clerodendrum longiflorum var. ***glabrum*** is similar to ***Clerodendrum floribundum*** but the flowers are much larger, corolla-tube to 6 cm long, stamens to 5 cm long, **white**. Fruit purple to black when fresh, calyx bright red to 2.5 cm diameter. Flowers in May.

C. heterophyllum f. *baueri*



C. floribundum note distorted flower on left

C. inerme fruit on illustration to the left



C. longiflorum var. *glabrum*

Glossocarya hemiderma (Lamiaceae)

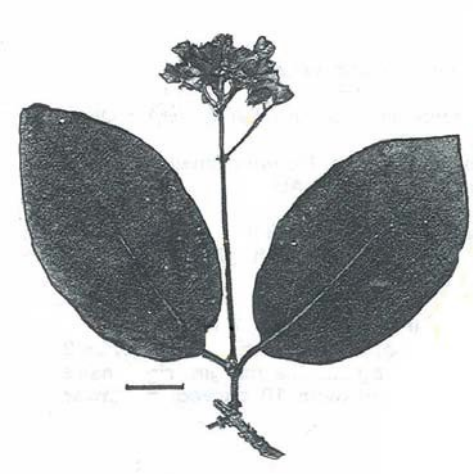
Glossocarya, from the Greek ***glossa*** – tongue, and ***karyon*** – nut, referring to the tongue-like margin of the mericarps (surrounding the seed).

An erect or scrambling shrub usually < 4 m tall. Flowers **white**, in dense corymbose heads. Fruits oblong, brown, calyx does not enlarge after fruiting. Flowering May.

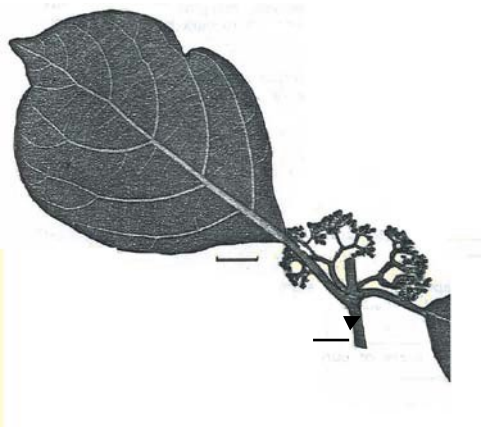
Callicarpa candicans (Callicarpa – Lamiaceae).

Callicarpa, from the Greek ***kallos*** – beauty, and ***karpos*** – fruit, meaning beautiful fruit.

This shrub is easily recognized by the stellate (↑) or star-shaped hairs on the stems and leaves, as well there are resinous glandular dots on the lower surface of the leaves. Corolla **purple**, stamens prominent. Fruit are purple drupes about 2 mm diameter. Flowering April.



G. hemiderma



C. candicans

Premna serratifolia (Creek Premna, Coastal Premna – Lamiaceae)

Premna, from the Greek ***premnon*** – a tree-stump, referring to some species being short.

Tall shrub, leaves usually broadly ovate to 20 cm long, 16 cm wide, hairs sometimes present on the main veins. Flowers **greenish-white**, somewhat 2-lipped; fruit globose, black at maturity to 8 mm diameter. Flowering September.

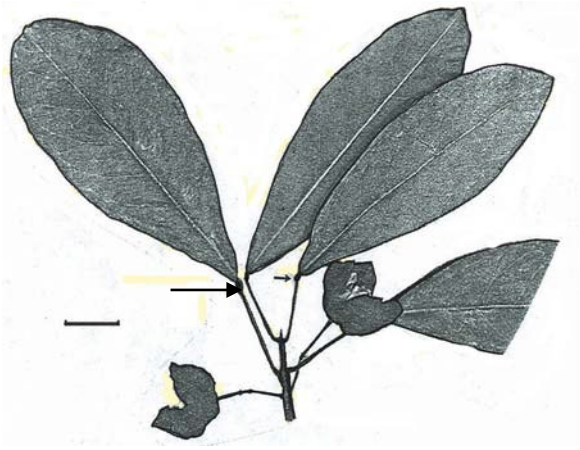
GROUP 5.G Leaves with oil glands/oil dots, aromatic when crushed (Myrtaceae, Rutaceae).

Acronychia laevis (Glossy Acronychia – Rutaceae)

Acronychia, from the Greek ***akros*** – point and ***onyx*** – claw, referring to petals having curved tips.

A tree, the leaves of which, have a small joint at the junction of the petiole and blade (↑) and also a lemon-like smell when crushed. Petals 4, **creamy-white,** fruit irregularly shaped, white to purple at maturity to 12 mm diameter.

P. serratifolia



A. laevis

Gossia bidwillii (Python Tree, Smooth-barked Ironwood, formerly ***Austromyrtus bidwillii*** – Myrtaceae)

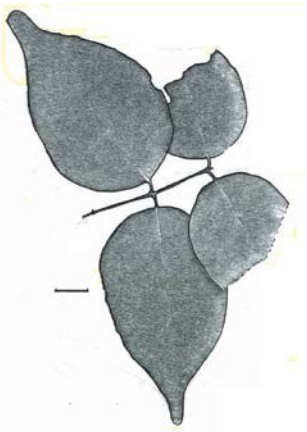
Gossia, after Wayne Goss, former premier of Queensland.

Shrub or small tree, often somewhat twisted, with smooth, blotchy bark. Leaves with obvious oil glands/dots when held to the light. Flowers **white** with numerous stamens, the fruit is globular to 6 mm diameter, fleshy, black when ripe.

Eugenia reinwardtiana (Beach Cherry, Cedar Bay Cherry – Myrtaceae)

Eugenia, Linnaeus named this genus for Prince Eugene of Savoy, a patron of botany.

Usually found as a small shrub growing amongst rocks. Leaves lanceolate to obovate, lateral veins distinct, oil dots obvious. Flowers **white to cream**, solitary or a few together; petals 4, stamens numerous fruit red, fleshy, globular to elliptical, to 2.3 cm long.



G. bidwillii

E. reinwardtiana

GROUP 5.H Leaves lacking aromatic oil glands, no smell when crushed.

Memecylon pauciflorum (Poor Flower Tree, Memecylaceae formerly part of Melastomataceae) ***Memecylon,*** from the Greek ***memekylon***, a name used for the edible fruit of the strawberry tree.

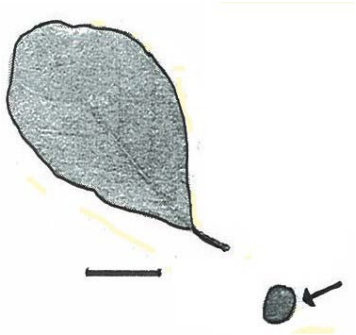
This plant is superficially very similar to ***Eugenia reinwardtiana*** but it lacks oil glands in the leaves, lateral veins are obscure; flowers are arranged in umbels, i.e., they all appear to arise from the same point and on stalks (pedicels) of equal length. Both tend to grow in similar habitats along shores amongst rocks. Shrub to 5 m tall, leaves usually less than 7 cm long. Flowers **white to blue**, petals 4, stamens 8. Fruit fleshy, purple-black to 8 mm long.

Emmenosperma alphitonioides (Yellow Ash, Bonewood – Rhamnaceae)

Emmenosperma, from the Greek ***emmenes*** – enduring, and ***spermum*** – seed.

Tree with opposite to subopposite leaves, which have smooth margins. Flowers small, 5 hooded petals, white enclosing the 5 stamens. Fruits are yellowish capsules to 4 mm diameter, splitting in to 2 to reveal the erect reddish to dark brown seeds (↑).

M. pauciflorum

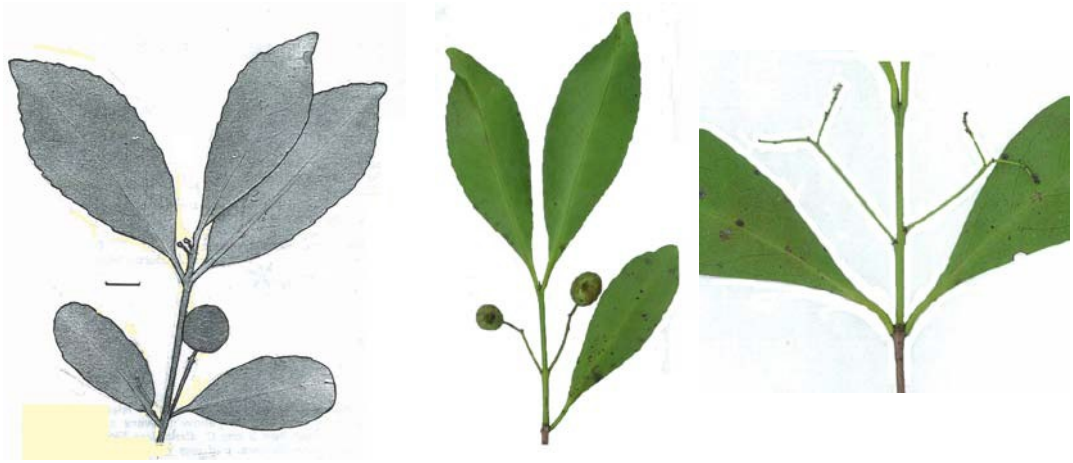


E. alphitonioides

Elaeodendron melanocarpum (Olive Plum, formerly ***Cassine melanocarpa*** – Celastraceae).

Elaeodendron, from Greek ***elaia*** – olive, and ***dendron*** – tree, referring to the appearance of the fruit.

A scrambling shrub or small tree; leaves opposite, 6-13 cm long, 3-7 cm wide, leaf margins are crenate. Flowers small, greenish, petals 3-4, separate male and female plants. Fruit a shiny black drupe when ripe, resembling an olive. Flowering April.



E. melanocarpum

Chionanthus ramiflorus (Northern Olive, Native Olive – Oleaceae)

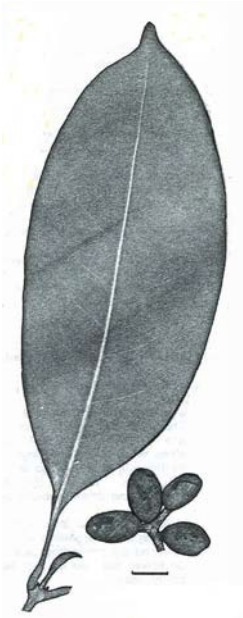
Chionanthus, from the Greek ***chion*** – snow, and ***anthos*** – flower.

A tall tree, twigs pale, leaves to 17 cm long and 7 cm wide, petioles and lower midrib often reddish. Flowers white to cream, with 4 petals and 2 stamens. Fruit a firm blue drupe to 15 mm long with 1 seed. This plant is an important food source for many birds and animals.

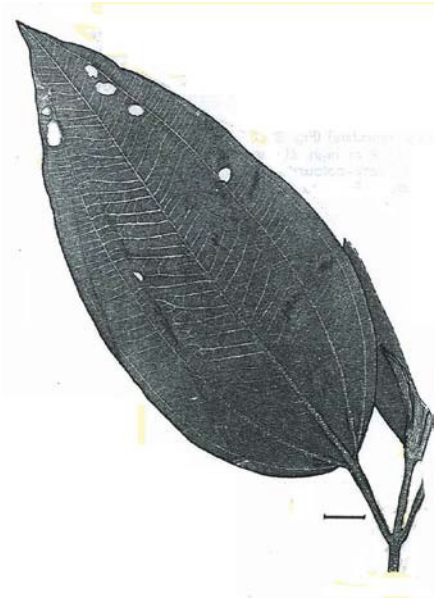
Melastoma affine (Blue Tongue, Native Lasiandra, – Melastomataceae)

Melastoma, from the Greek ***melas*** – black, and ***stoma*** – mouth, since the fruit stains the mouth blackish.

Shrub to 3 m tall, the leaves have 3 prominent longitudinal veins, with 2 finer ones near the margins. There are numerous rigid hairs appressed to the surface. Flowers mauve, large to 5 cm diameter, 10 stamens, filaments curved and dissimilar. Fruit a blue-black berry.



C. ramiflorus



M. malabathricum

KEY TO GROUP 6

Leaves compound, i.e., a leaf separated into 2 or more leaflets – sketches C, D, E.
Leaves alternate.

				
A. flower pea-shaped	B. pod or legume	C. bipinnate leaf	D. pinnate leaf	E. digitately arranged leaflets

1 Flowers pea-shaped (see sketch A), stamens 10, filaments variously fused (All Pea family – Fabaceae) go to 2

1* Flowers **not** pea-shaped, number of stamens varies, **if** 10 then the staminal filaments rarely fused go to 3

2 Flowers yellow and pea-shaped go to **Group 6.A**

2* Flowers usually pink, mauve or purple, occasionally white (all pea-shaped) go to **Group 6.B**

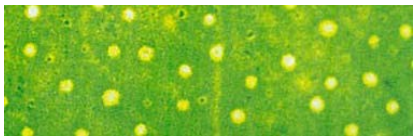
3 Fruit a pod or legume, i.e., as in a bean (B), flowers whitish to yellow, staminal filaments free **or** if fused then for only half their length (all in Wattle and Cassia families) go to 4

3* Fruits and flowers not as above go to 5

4 Leaves bipinnate (see sketch C) go to **Group 6.C**

4* Leaves pinnate (D) or subdigitate, i.e., almost hand-like but not all uniformly arising from the same point as in the fingers of a hand go to **Group 6.D**

5 Leaves with oil glands, smell of citrus or an unpleasant smell when crushed (All in Citrus family – Rutaceae) go to **Group 6.E**



Large oil glands as seen through a good hand lens, or held up to the light

5* Leaves lack oil glands, no particular smell when crushed go to 6

6 Leaflets alternate or subopposite on the rachis of the compound leaf (i.e., the main axis of the leaf) terminal leaf may be reduced to a spine (in sketch D there is a terminal leaflet) go to **Group 6.F** (mostly Sapindaceae and Burseraceae)

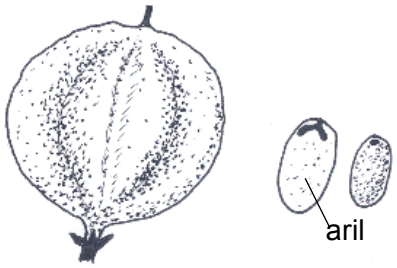
6* Plants lack the above combination of features go to 7

7 Leaflets opposite each other on the rachis (as in D above) go to **Group 6.G** (Chiefly Meliaceae, Anacardiaceae)

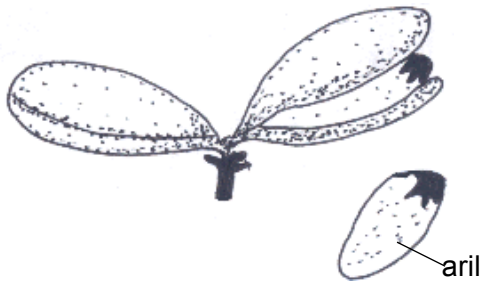
7* Leaflets digitately arranged (E), i.e., like a hand go to **Group 6.H**

FRUITS

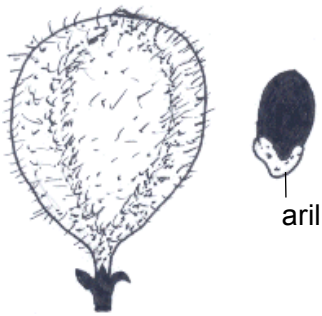
A Sapindaceae



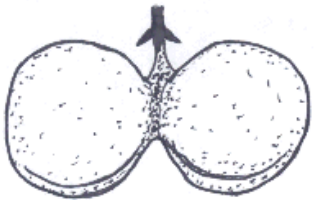
A *Cupaniopsis anacardioides*



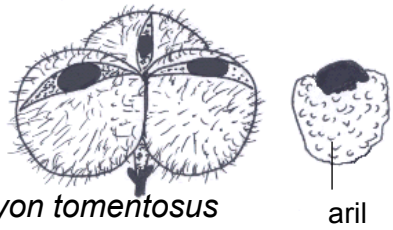
B *Arytera divaricata*



D *Jagera pseudorhus*

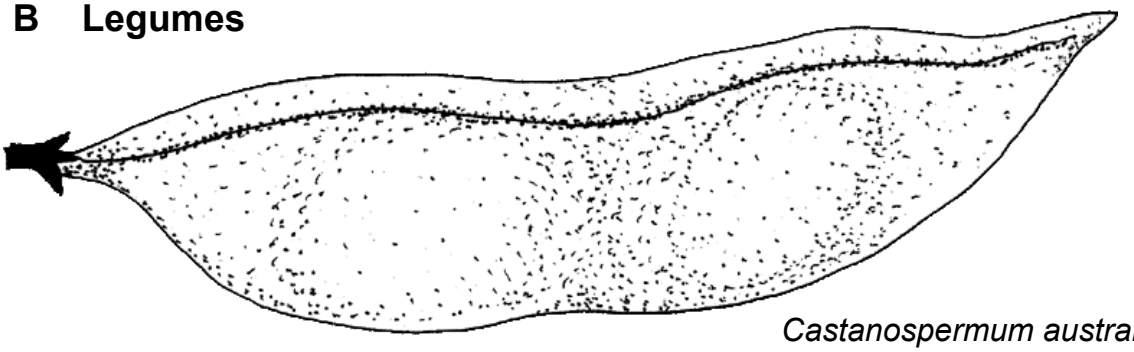


C *Harpulia pendula*

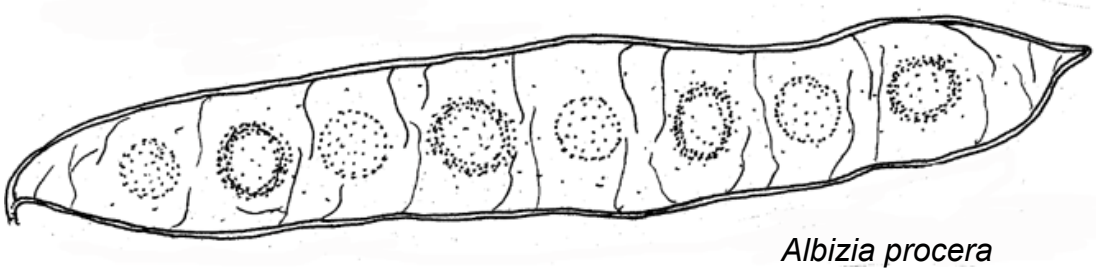


Ξ *Alectryon tomentosus*

B Legumes



Castanospermum australe



Albizia procera

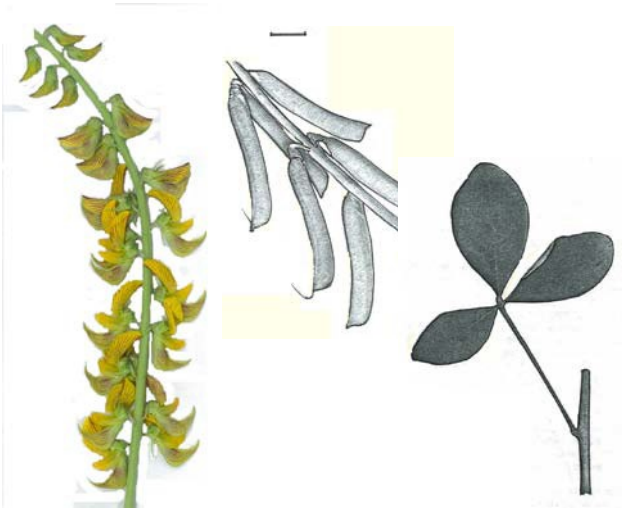
GROUP 6.A Flowers yellow, pea-shaped

Crotalaria spp. (Rattlepods – Fabaceae) (**N.B:** See **Group 7.A** for more species of rattlepods)
Crotalaria, from the Greek ***krotalon*** – castanet, referring to the rattle the seeds make in a dry pod.

Crotalaria goreensis (Gambia Pea)* Leaves with a large leafy stipule i.e., leaf-like structure at the junction of leaf stalk and stem; flowers clustered, corolla a **yellow/red** mixture, pods brown,1-2 cm long.

Crotalaria pallida (Streaked Rattlepod)* Leaves with 3 leaflets, flowers **yellow**, standard streaked with red markings, pods 3-4.5 cm long.

C. goreensis



C. pallida

Crotalaria aridicola (Chillagoe Horse Poison) Here the leaflets are covered with silvery-grey hairs; flowers **yellow**; pods roughly triangular, about 8 mm long.

Crotalaria medicaginea (Trefoil Rattlepod) Leaflets 3, green, small **yellow** flowers, standard 3-8 mm long, keel narrow and beaked; small globular pods about 5 mm long. A number of varieties have been described.

Crotalaria laburnifolia (Bird Flower)* Bushy shrub to 2 m tall, leaves green, leaflets 3; flowers **yellow**, distinct beak present, pod a mottled light brown more than 4 cm long.

C. aridicola

C. medicaginea var *neglecta*

C. laburnifolia

Cajanus reticulatus (Fabaceae)

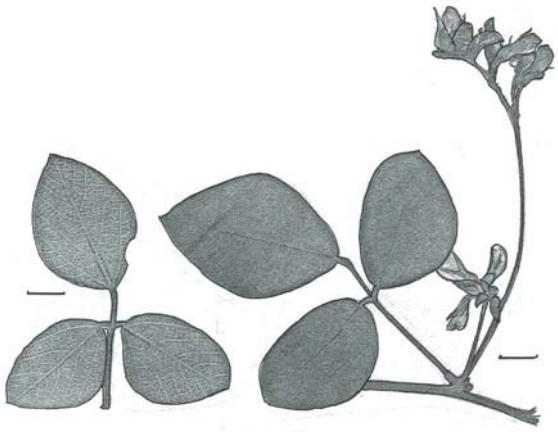
Cajanus from the Malay word for bean or pea, ***kachang***.

An erect or spreading shrub to 2 m tall, stems ribbed and densely covered by spreading pale to rusty-coloured hairs. Veins prominent on the lower surface of the leaf blades. Flowers **yellow**; pods 2-3 cm long, softly hairy.

Sesbania cannabina (Sesbania Pea – Fabaceae)

Sesbania, from the Arabic ***sesban***, the name for a local plant.

A fast growing annual with 12-30 pairs of leaflets per leaf; flowers **yellow**, pods thin and narrow to about 20 cm long.



C. reticulatus

S. cannabina

Stylosanthes scabra (Shrubby Stylo – Fabaceae)

Stylosanthes from ***stylo*** – a column referring to appearance of the inflorescence.

This introduced fodder plant is a perennial. It forms an erect branched shrub to 1 m tall, stem sticky to touch because of the glandular hairs. Leaves with 3 leaflets; flowers pea-shaped, standard to 4 mm long, yellow to yellow-orange with reddish veins. The densely hairy, dark brown pod is about 6 mm long with the persistent style forming a hook about 1 mm long, pod has1-2 joints.

Stylosanthes hamata (Verano, Caribbean Stylo – not illustrated – Fabaceae) has whitish hairs on the stem but these are not sticky. Pod densely hairy, to 7 mm long, hook 2-4 mm long.

Stylosanthes humilis (Townsville Stylo – Fabaceae)

An annual often prostrate, rarely more than 30 cm tall, the stems may be softly hairy but hairs are not glandular. Leaves with 3 leaflets; flowers pea-shaped in clusters of 3-10, standard about 2 mm long, yellow to orange. Pod to 4 mm long with a hook 1.5-7 mm long. It is sparsely hairy, and black at maturity.

S. scabra

S. humilis

Sophora tomentosa subsp. ***australis*** (Silver Bush – Fabaceae)

Sophora, from the Arabic ***sophera***, a tree with pea-shaped flowers.

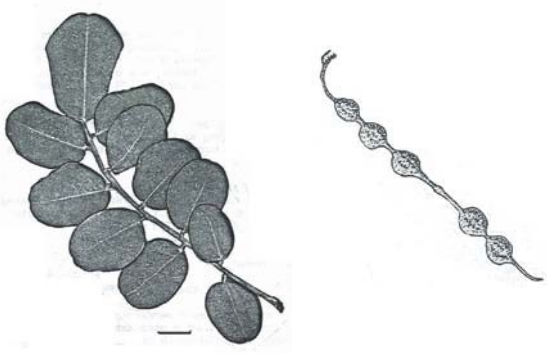
A small tree often found growing near the beach, leaves are greyish, flowers are **pale yellow** and the pods are grey and irregularly constricted between the seeds.

GROUP 6.B Flowers usually pink, mauve or purple, sometimes white, pea-shaped (All Fabaceae).

Pongamia pinnata (Pongamia Tree, has also been known as ***Milletia pinnata*** – Fabaceae)

Millettia, after Millett a botanist who first collected in China. ***Pongamia*** an Indian name.

Tree, often along gullies, with 3-7 pairs of leaflets per leaf, deciduous in spring, new growth is coppery. Flowers **white to pale pink to purple**, flat pods to 4-7 cm long, occasionally longer, seeds with rusty-coloured coat or testa. Galls often present and at first may be mistaken for fruit.



S. tomentosa

P. pinnata

Tephrosia spp. (Fabaceae)

Tephrosia, from the Greek ***tephros*** – ash-coloured.

Species are easily distinguished from the genus ***Indigofera*** by the lack of T-shaped hairs on the leaves, the presence of hairs on the back of the large back petal or standard, and frequently the lateral veins in the leaflet are approximately parallel to one another. Species to note are:

Tephrosia astragaloides forms an attractive shrub to 2 m tall. Leaves covered with numerous silky, adpressed hairs on lower surface, 7-19 leaflets. The inflorescence is dense, flowers borne in clusters of 2-4 along the raceme. Corolla **white** occasionally with purplish lines, standard about 11 mm long. Pod 20-35 mm long, seeds 3 x 2 mm.

Tephrosia brachydon an attractive shrub to 1.5-2 m. Leaves with 3-31 leaflets, lower

surface of leaves covered with numerous, closely appressed silky hairs, upper surface hairless. Inflorescence loose, flowers **pink to purple occasionally white**, standard 9-13 mm long. Pod 25-50 mm long, seeds 4.5 x 2.5 mm. There are 3 varieties recorded for the Island.

Tephrosia juncea is a smaller, sparsely branched plant with the terminal leaflet (↑) much longer than the laterals (2-5 times); corolla **pink**. A similar plant is ***T. filipes*** but here the terminal leaflet is only 1-1.5 times as long as the laterals and the petals are in shades of **purple**.

Tephrosia gaudium-solis, (not illustrated) is a plant to 2 m tall, upper surface of leaf sparsely hairy unlike ***T. brachydon*** where the upper surface lacks hairs; corolla **purple**. ***Tephrosia*** sp. "Picnic Bay" is a spreading shrub to about 1 m, flowers pink.

T. astragaloides

T. brachydon

T. juncea

Indigofera spp. (Fabaceae)

Indigofera, from the Latin ***indigus*** – indigo, and ***ferus*** – bearing.

Species in this genus all have T-shaped hairs on the leaves. The dye 'indigo' is extracted from a member of this genus

Indigofera hirsuta (Hairy Indigo), this plant has **reddish** flowers and the curved pods are covered with dark spreading hairs.

Indigofera tinctoria is a spreading shrub to 1.5 m tall with **pink** flowers, 9-13 leaflets; pod somewhat curved to 2 cm long, some hairs present, 8-12 seeds.

Indigofera tryonii is a low-growing shrub with 15-33 or more leaflets, flowers about 5 mm long often with a **yellowish-red** tinge, pods with 2-4 seeds.

Indigofera pratensis A shrub to 60 cm tall, spreading, leaves with 7-27 leaflets, flowers about 11-13 mm long, standard **bright purple**; pods with 2-4 seeds, and a strongly curved pod 1-2 cm long.

I. hirsuta

I. tinctoria

Indigofera brevidens leaves are silky, leaflets 9-21, pubescent on both sides; flowers are **pink to reddish**, and the straight pods are up to 3 cm long.

Indigofera linnaei (Birdsville Indigo) is a prostrate plant with greyish branches and 5-9 leaflets per leaf. Flowers are **reddish** and the pod is about 5 mm long.

Aphyllodium biarticulatum (Thick Trefoil, formerly ***Dicerma biarticulatum*** – Fabaceae)

Aphyllodium, from ***aphyllos,*** referring to the lack of leaves associated with the inflorescence.

A sprawling plant, leaves have 3 leaflets; flowers small **reddish**, pod breaking up into 1-2 segments.

I. brevidens

I. linnaei

A. biarticulatum

Desmodium tortuosum (Florida Beggar-weed – Fabaceae)*

A somewhat sprawling plant, leaves with 3 leaflets; flowers small, **reddish**, pod covered with hooked hairs breaking up into separate segments, up to twice as long as broad. ***Desmodium scorpiurus*** has pods 3-4 times as long as broad. See **Group 3.F**.

GROUP 6.C Leaves bipinnate, i.e., twice divided (chiefly Mimosaceae, sometimes treated as a subfamily of Fabaceae).

Falcataria toona (Red Siris, Mackay Cedar – Mimosaceae/Fabaceae)

Previously known as ***Paraserianthes,*** meaning related to the genus ***Serianthes***.

Tree, with numerous small leaflets, deciduous in spring. Flowers in globular heads, petals **yellowish-green**, stamens 10, filaments fused from the base for

half their length. Pods flat to 15 cm long, 2.5 cm wide, reddish-brown.

D. tortuosum

F. toona

Albizia procera (Forest Siris – Mimosaceae/Fabaceae)

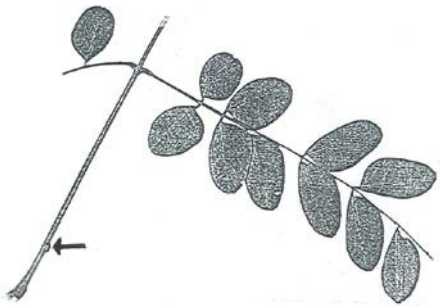
Albizia, after Filippo degli Albizzi, an Italian naturalist who first collected in Constantinople, 1749.

Tree with bipinnate leaves, about 3 pairs of pinnae, 6-8 pairs of leaflets per pinna, glands (↑) present. Pod flat, dark brown to 25 cm long; flowers **whitish**, stamens numerous, partly fused. Several related species are ***Albizia lebbeck**** (Indian Siris, Siris Tree) with flat papery pods to 30 cm long and 6.5 cm wide, straw-coloured, flowers with prominent **yellowish green** stamens, and ***Samanea saman**** (Raintree) which has woody pods and numerous **pinkish** stamens.

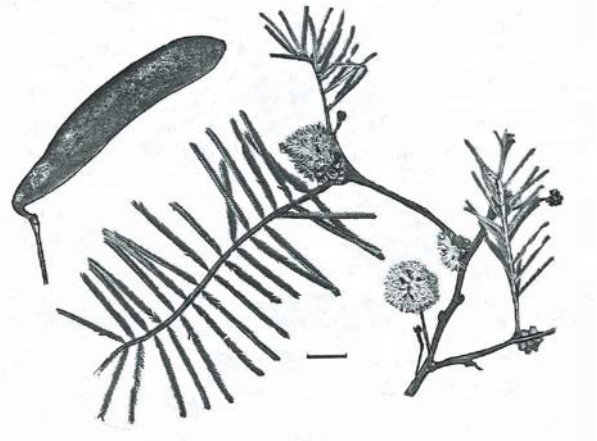
Vachellia bidwillii previously in genus *Acacia* (Corkwood Wattle – Mimosaceae/Fabaceae)

Vachellia after the Revd. George Vachell who collected many plants in China.

Small tree with corky bark and bipinnate leaves; young branches often with thorns. Flowers in heads, **pale yellow**, stamens numerous, filaments free, pod flattened, brown, woody to 15 cm long.



A. procera



Vachellia bidwillii

Caesalpinia bonduc (Nicker Nut, Grey Nickerbean – Caesalpiniaceae/Fabaceae)

Caesalpinia, after Andrea Cesalpini, an Italian botanist, and physician to Pope Clement VIII.

A sprawling shrub with prickly stems; flowers **yellowish** in racemes. Pods prickly, to 6.5 x 4.5 cm, with 1-2 bluish-grey seeds which are often found on the beach.

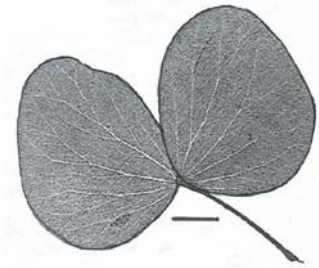
GROUP 6.D Leaves pinnate or subdigitate; petal size unequal. (Caesalpiniaceae, often treated as a subfamily of Fabaceae)

Bauhinia hookeri (Bauhinia, also known as ***Lysiphyllum hookeri*** – Caesalpiniaceae/Fabaceae)

Bauhinia, named by Linnaeus for the two brothers Bauhin, Swiss botanists, (paired leaflets). ***Lysiphyllum*** from the Greek ***lysis*** – loose, setting free, and ***phyllon*** – leaf, referring to the 2 separate leaflets.

Bushy tree with paired leaflets separated by a small point. Flowers **white** to 7 cm diameter, upper portion of the long stamens crimson; pod flat, brown to 3 cm wide. Flowers in February.

C. bonduc



B. hookeri alt. *Lysiphyllum hookeri*

Senna gaudichaudii (Caesalpiniaceae/Fabaceae)

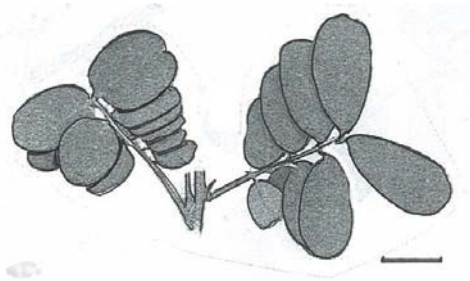
Senna, from the Arabic ***sana***, referring to the medicinal properties of the plants.

Straggly shrub, 3-6 pairs of leaflets per leaf; flowers **yellow** to 2 cm wide. Pod flat 10-15 cm long, partitions between seeds obvious. Some previous names include: ***Senna surattensis*** subsp***. retusa*** and ***Cassia retusa***.

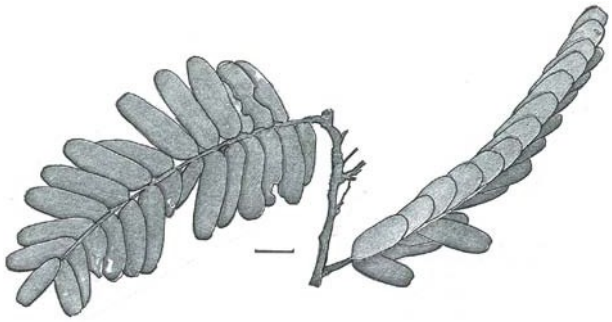
Tamarindus indica (Tamarind – Caesalpiniaceae/Fabaceae)

Tamarindus, from the Arabic ***tamar*** – a date, and ***hindi*** – Indian, an Indian date.

This cyclone resistant tree produces dense shade. Flowers **pale yellow** with brownish markings; turgid pods to 15 cm long, often slightly constricted between the shiny, brown seeds. Tamarind sauce is made from the pulp.



S. gaudichaudii



T. indica

Labichea nitida (Caesalpiniaceae/Fabaceae)

Labichea, named for Labiche (1784-1819) a French naval officer who sailed with Freycinet.

A shrub, usually with 5 subdigitately arranged leaflets, each tip has a rigid mucronate point (↑). Flowers **yellow**, stamens 2, unequal in size.

Chamaecrista absus (Hairy Cassia – Caesalpiniaceae/Fabaceae)
Chamaecrista, from the Greek ***chamae*** – dwarf, and the Latin ***crista*** – a crest.
Plant to about 50 cm high, branches rough and sticky; leaves with 2 pairs of leaflets. Flowers **yellow** with a red centre; flat pods covered with short sticky hairs.

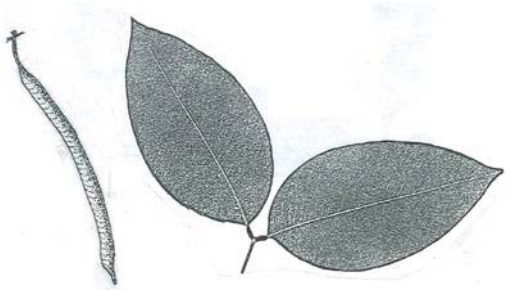
L. nitida

C. absus

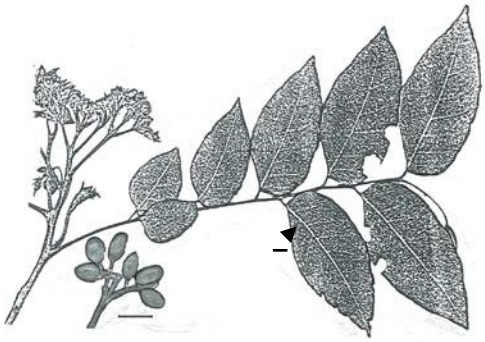
Cassia fistula (Golden Shower, Cascara, Indian Laburnum – Caesalpiniaceae/Fabaceae)*
Cassia, from the Greek ***kasia***, name used by Dioscorides for a medicinal pea plant.
Deciduous tree with 3-8 pairs of leaflets per leaf. Flowers **pale yellow** in pendulous racemes to 65 cm long, petals 20-30 cm long; cylindrical pod to 60 cm long, seeds embedded in blackish pulp. Introduced; the laxative cascara is extracted from the pod. ***Cassia*** sp. "Paluma Range", racemes to 35 mm long, petals 15-20 mm long (West Point). Flowers summer.

GROUP 6.E Leaves with oil glands; usually a citrus smell (all Rutaceae).

Micromelum minutum (Lime Berry – Rutaceae)
Micromelum, from the Greek ***micros*** – small, and ***melon*** – an apple, referring to the fruit.
Usually a small dense tree, 7-15 leaflets per leaf, softly hairy, margins irregularly crenate, leaflet base oblique, domatia present on lower surface(↑). Crushed leaf odour is unpleasant. Flowers **white** in large heads; fruit an orange-red berry to 1 cm long. Flowers and fruits in summer.



C. fistula (much reduced-1 pair of leaflet shown)



M. minutum

Clausena brevistyla (Clausena – Rutaceae)

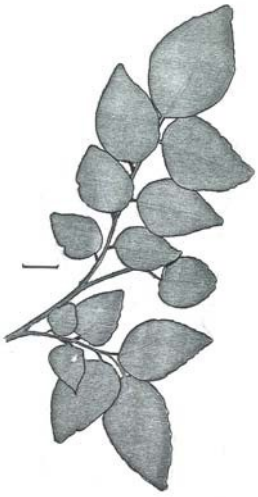
Clausena for a Danish priest and botanist, Peter Clausen (1545-1614), an algal specialist! A small tree, 9-15 leaflets per leaf, leaflets oblique at the base, margins crenate. Flowers with 4 **white petals** are arranged in panicles; fruit ovoid purplish, to 1.5 cm diameter, glands prominent, flesh sticky. Flowering November.

Murraya paniculata (Mock Orange – Rutaceae)

Murraya, after Johan Andres Murray, a pupil of Linnaeus, botanist and physician at Gottingen.

Shrub, 5-10 leaflets per leaf, unequal in size and usually basally oblique, lower leaflets smaller size increasing so terminal leaflet is the largest, margins irregularly crenate. Upper surface appears rough because of the large oil dots. Flowers with 5 **white** petals; fruit a red drupe, ovoid to 1.5 cm long.

C. brevifolia



M. paniculata

Glycosmis trifoliata (Glycosmis, Pink Lime – Rutaceae)

Glycosmis, from the Greek ***glykys*** – sweet and ***osme*** – smell, referring to the fragrance. Shrub or small tree, leaves usually with 3 leaflets occasionally up to 7, leathery; glossy green above, margins wavy. Flowers with 5 **white** petals, usually borne in clusters on older wood; fruit a globular, pinkish berry to 12 mm diameter.

GROUP 6.F Leaflets alternate to subopposite, terminal leaflet may be reduced to a spine.

Cupaniopsis anacardioides (Tuckeroo, Cupania Tree, Beach Tamarind – Sapindaceae)

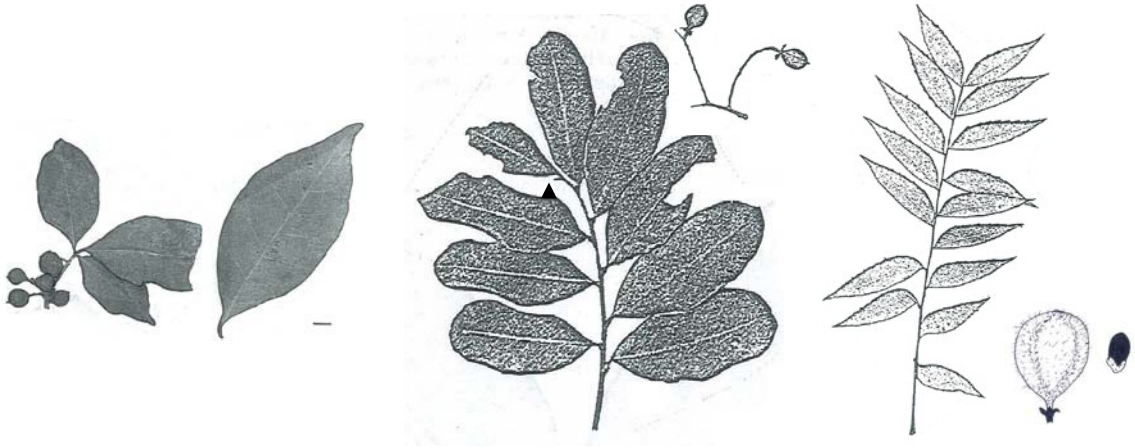
Cupaniopsis, from ***opsis*** – resemblance, and the genus ***Cupania***, named after the 17th Century Italian botanist, Francesca Cupani.

Small tree with 2-6 pairs of leaflets per leaf, spine present (↑), leathery, shiny above, apex often notched. Flowers **greenish-white**, capsules yellow-orange, with 3-6 lobes, 1-2 cm diameter; seeds black with an orange-red aril. Fruiting November.

Jagera pseudorhus (Foam Bark Tree, Fern Tree, Pink Tamarind – Sapindaceae)

Jagera after Herbert de Jager who worked as a collector in Indonesia.

Tree, leaves usually clustered towards the tips of the branches, 4-9 pairs of leaflets, terminal leaflet represented by a spine, leaflet base oblique, margins usually serrated. Flowers creamy-white to even reddish arranged in panicles; capsules yellow to 2 cm long, covered with rusty hairs.



G. trifoliata *C. anacardioides* *J. pseudorhus*

Ganophyllum falcatum (Scaly Ash – Sapindaceae)

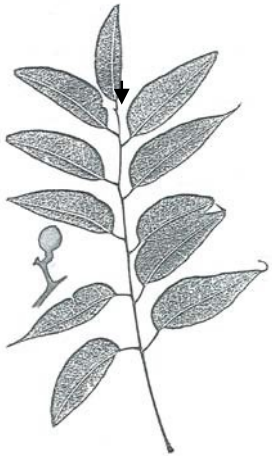
Ganophyllum, from the Greek ***ganos*** – beauty, and ***phyllon*** – leaf, referring to the attractive leaf.

Tree, with resinous young shoots, 10-20 leaflets per leaf, small spine present (↑) markedly oblique at the base, dark, shiny green on upper surface. Flowers unisexual, **whitish** in panicles; fruit orange-red, fleshy to 1.5 cm diameter.

Euroschinus falcata (Ribbon Wood, Maiden's Blush – Anacardiaceae)

Euroschinus from ***euros*** – south-eastern, and ***Schinus***, indicating a relationship to this northern genus.

Tree, leaflets 6-10 per leaf, unequal at base, opposite or alternate; terminal leaflet is sometimes absent or greatly reduced so as to resemble a spine, hair tufts may be present adjacent to midrib in axils. Flowers bisexual, small to 5 mm diameter, **pale pink**; fruit fleshy to 9 mm long, black, with a single seed. Two varieties may be recognized, the common variant is variety ***falcatus*** which has broader leaves than variety ***angustifolius***.



G. falcatum

E. falcata

Harpullia pendula and ***Harpullia hillii*** (Tulipwood – Sapindaceae)

Harpullia, based on ***harpulli***, a local Indian name.

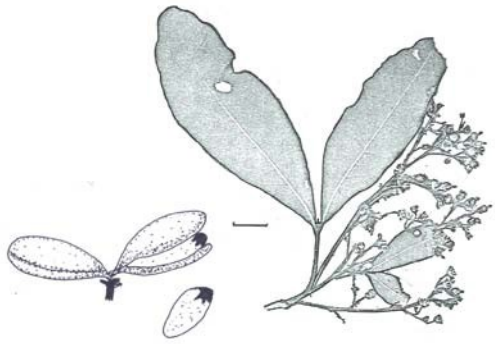
Both species have 2-lobed showy capsules. In ***Harpullia pendula*** the capsules are yellow-orange to red, and an aril is virtually absent, stamens 8; ***Harpullia hillii*** the capsules yellow, aril red, stamens 5. Leaves in ***Harpullia pendula*** have 4-7 leaflets, apex is acute to obtuse, spine obvious in young leaves. In ***Harpullia hillii*** the apex of the leaflets are rounded, obtuse to retuse. Flowers with 5 **white to greenish petals.**

Arytera divaricata (Rose Tamarind – Sapindaceae)

Arytera is from the Latin ***arytaenoides*** – like a cup, referring to the valves of the fruit.

Small tree, 2-6 leaflets per leaf, terminal leaflet reduced to a small spine. Flowers small, petals minute, **pink;** fruit a lobed, yellow to orange capsule, to 1 cm long. Flowering February.

H. pendula



A. divaricata

NOTE: ***Alectryon*** may key to here if leaflets alternate refer to description in **Group 6.G** as leaflets may be alternate or opposite.

GROUP 6.G Leaflets opposite on the compound leaf rachis.

NOTE: ***Euroschinus*** comes out here when leaflets are opposite.

Brucea javanica (Macassar Kernals – Simarubaceae)

Brucea, named in honour of James Bruce a Scottish explorer (1730-1794).

Shrub or small tree to 10 m tall. Leaflet numbers varies from 3-15 but usually 7-8 present, leaflet stalk of the terminal leaflet much longer than the laterals; leaflet margins are serrated. Petals 4, small, **greenish-white to purplish**. Ovary bears 4 obviously recurved styles; fruit of 4 druplets, blue-black at maturity.

Garuga floribunda (Garuga – Burseraceae)

Garuga from a native east Indian name.

Small tree, leaves usually clustered towards ends of branches, leaflets 14-16 to 10 cm long and 5 cm wide, usually hairy, prominently veined. Deciduous when flowering, flowers 5 mm diameter with 5 **greenish-white** petals**,** hairy borne in terminal panicles. Fruit a drupe to 2.5 cm, black.

B. javanica

G. floribunda

Canarium australianum var. ***australianum*** (Mango Bark, Scrub Turpentine, Carrot Wood, Brown Cudgerie – Burseraceae)

Canarium, a Malaysian name for a species of this genus.

Tree, semi-deciduous, leaflets usually 5-9 per leaf, leathery, veins prominent often pale. Flowers **whitish** arranged in panicles; fruit a smooth blue drupe about 2.5 cm long with 1 seed. Fruit is eaten by Torres Strait pigeons. Separate male and female trees.

Pleiogynium timorense (Burdekin Plum – Anacardiaceae)

Pleiogynium, from the Greek ***pleion*** – more, and ***gyne*** – woman, referring to the many female parts of the flower.

Tree, 7-11 leaflets per leaf, domatia (↑) usually prominent. Flowers small, **yellowish-green**, unisexual flowers. Fruit purple, somewhat fleshy to 4 cm diameter, centre hard and ribbed (↑). Fruit edible but extremely tart, old 'stones' commonly found below tree. Fruit need to fully softened before using in jam making.

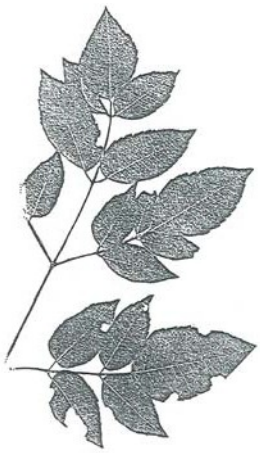
Melia azedarach (White Cedar – Meliaceae)

Melia from the Greek ***meli*** – honey, as some species have a sweet sap.

Tree with large leaves, bi- or tripinnate. Flowers usually **pale mauve**, petals 5, staminal filaments fused to form a tube; fruit a yellow drupe to 1.5 cm long, toxic.

C. australianum

P. timorense (leaf x ¼)



M. azedarach x 1/4

Aglaia elaeagnoidea (Droopy Leaf – Meliaceae)

Aglaia from ***aglaos*** – splendid, named after one of the three graces of Greek legend.

Tall shrub, 3-7 leaflets per leaf, undersurface of leaf covered with silvery scales. Flowers **pale yellow**, separate sexes; fruit a fleshy drupe to 1 cm long, covered in orange to red coloured scales.

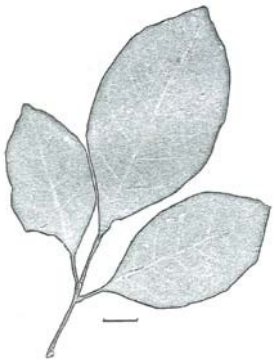
Alectryon tomentosus, Alectryon connatus and ***Alectryon reticulatus*** (Red Bed Jacket – Sapindaceae)

Alectryon, from the Greek ***alectryon*** – a cock, there is a comb-like crest on some fruits.

Alectryon tomentosus has 4-8 leaflets per compound leaf, spine at the end of the rachis usually softly hairy; fruits hairy with 1-3 knob-like lobes, and a large red aril; leaf margins serrate. Flowers small **cream**.

Alectryon connatus has 2-4 leaflets per compound leaf. Fruit is 3-4 lobed, orange-red aril, crispy hairs usually present on branches, leaf margins smooth.

Alectryon reticulatus has a glabrous fruit with1 knob-like lobe often ridged, red aril, leaf margins smooth, 3-7 leaflets per compound leaf



A. elaeagnoides

A. tomentosus

A. connatus

GROUP 6.H Leaflets digitately arranged.

Cleome viscosa (Tick Weed, Spider Flower – Cleomaceae formerly part of Brassicaceae)*

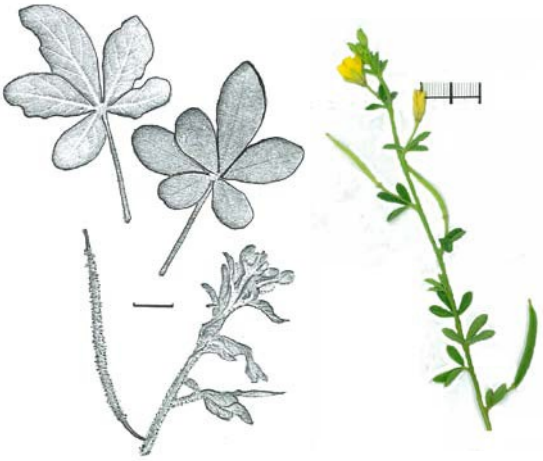
Cleome, name originally used by Theophrastus for a plant with medicinal properties.

Herb to 1 m tall, leaflets 5 per leaf, most parts glandular pubescent, i.e., sticky. Flowers **yellow**, fruit a cylindrical capsule to 10 cm. Weed.

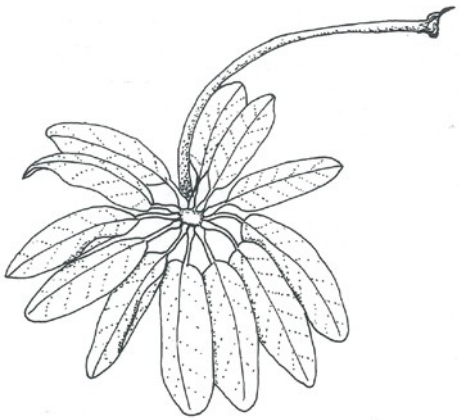
Heptapleurum (Schefflera) actinophylla (Umbrella Tree – Araliaceae)

Schefflera after J.G. Scheffler (1722-1811) a physician in Danzig. ***Heptapleurum*** refers to the way the leaves are held.

Tree, often much branched near the ground, may be epiphytic. Leaves with 7-16 leaflets palmately arranged i.e., as in a hand, glossy on upper surface. Flowering spikes radiate out at the top of the branches like spokes, flowers **dark pink to dark red**; individual flowers sessile arranged in clusters on these long branch-like spikes. Fruit fleshy, red to dark purple to 7 mm long. Flowers and fruits loved by birds.



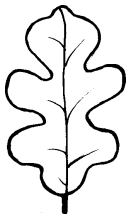
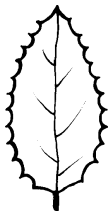
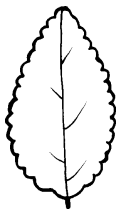
C. viscosa



H. actinophylla

KEY TO GROUP 7

Herbs or subshrubs **usually** less than 1 m tall, leaves alternate.

					
A. leaf lobed	B. leaf dissected	C. margins serrate	D. margins dentate	E. margins crenate	F. leaf linear -lanceolate

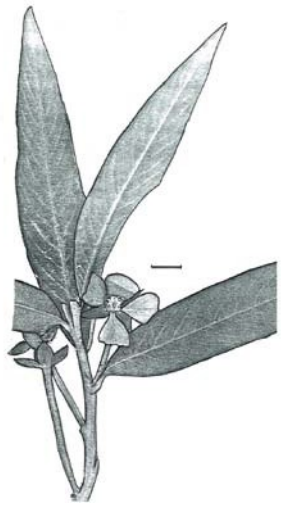
1	Flowers yellow	go to **Group 7.A**
1*	Flowers variously coloured but not yellow	go to 2
2	Leaves lobed (see sketch A) or deeply dissected (B)	go to **Group 7.B**
2*	Leaves not lobed or deeply dissected	go to 3
3	Leaf margins serrate (C), dentate (D), or crenate(E)	go to **Group7.C**
3*	Leaf margins smooth	go to 4
4	Leaves linear to linear-lanceolate (F), less than 4 cm long	go to **Group 7.D**
4*	Leaves not linear, broad or variously shaped, **if** narrow then more than 4 cm long	go to **Group 7.E**

Tacca leontopetaloides
Polynesian arrowroot

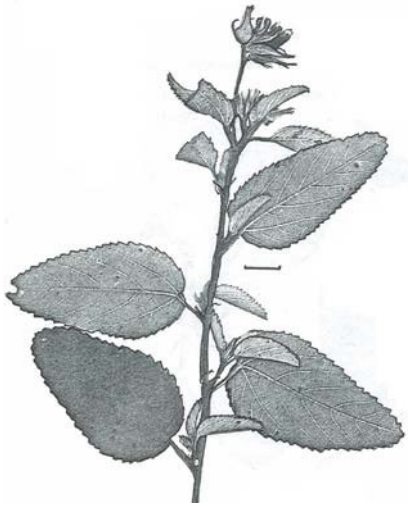
GROUP 7.A Flowers yellow.

Ludwigia octovalvis (Willow Primrose – Onagraceae)
Ludwigia, C.G. Ludwig was a German botanist and physician, 1709-1773.
An erect, much branched plant usually found in moist habitats. Petals 4, **yellow**,stamens 8; capsules narrow to 4.5 cm long.

Melhania oblongifolia (Velvet Hibiscus – Malvaceae) ***Melhania,*** named after Mt Melhan in Yemen where the type of the genus was collected.
A subshrub covered with stellate or star-shaped hairs. Petals **yellow**, to 3 cm diameter, withering to form a column; the 5 stamens alternate with 5 sterile stamens or staminodes; fruit a capsule.



L. octovalvis

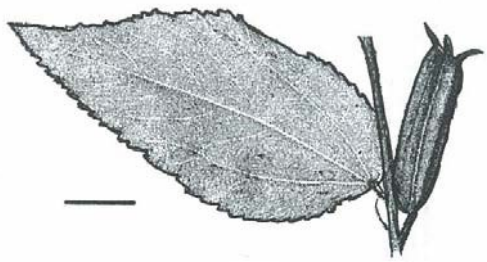


M. oblongifolia

Corchorus hygrophilus (Malvaceae/Sparrmanniaceae formerly part of Tiliaceae)
Corchorus, from the Greek ***korchorus,*** meaning obscure also suggested from Greek ***coreo*** – to purge, because of the laxative properties associated with some species.
Plant to 50 cm tall, leaves 8-12 cm long, margin serrate; petals 4 **yellow**; fruit broadly ellipsoidal, 7-12 mm long, with 3-4 ribs. Rare.

Corchorus aestuans is often procumbent but sometimes forms an erect plant to 1 m tall; leaves to 9 x 4 cm, margins serrate, 2 tails formed from extensions of 2 serrations often present near the base; petals 5, **yellow**; fruit 13-30 mm long, with 3-4 prominent long wings.

C. hygrophilus



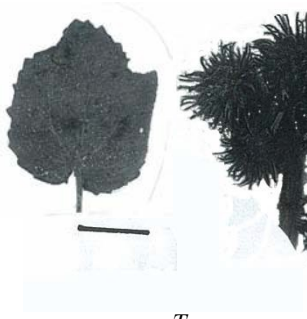
C. aestuans

Triumfetta rhomboidea (Chinese Burr, Triumfetta Burr – Malvaceae/Sparrmanniaceae formerly part Tiliaceae)*

Triumfetta, named after Giovanni Triumfetti (1658-1707) A Professor of Botany in Rome. Shrubby plant to 1.5 m tall, leaves usually 3-lobed, 3-veined at base. Flowers **yellow** in clusters, stamens 10-15 per flower; capsule to 9 mm long, to 8 mm diameter, covered in prickles. It is a common weed. A similar species occurring in the Townsville area is ***Triumfetta pentandra***, it may be distinguished by the flower only have 5 stamens and the fruit is densely hairy on one side only.

Triumfetta repens is a low spreading shrub, stamens 30-40 per flower, fruits from 17-22 mm long and 15-20 mm diameter, covered with firm prickles. Leaf shape variable in shape and size in both species.

T. rhomboidea (left), *T. pentandra* (right)



T. repens

Sida spp. (Malvaceae)

Sida is the Greek name for a water plant, as one of the first species described grew in a moist habitat.

These subshrubs frequently have leaves covered with stellate or star-shaped hairs and the leaf margins are often indented. Flowers **yellow to orange**, staminal filaments fused for most of their length to form a column. Stylar branches 5, fruit a capsule, the valves of the fruiting sections are referred to as mericarps, the hard sides of each are often rough. Most are weedy. Some common ones are:

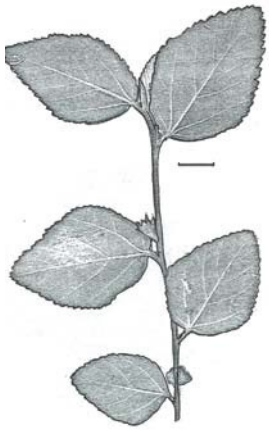
Sida atherophora, stems with stalked stellate hairs, calyx 10-ribbed at base, mericarps 6-9;

Sida cordifolia (Flannel Weed), plant densely softly hairy, hairs not stalked, leaves softly hairy almost velvety to feel, often appearing yellowish-green, calyx 10-ribbed at base, mericarps 10-11; which each bear 2 bristles about 3 mm long;

Sida rhombifolia (Common Sida, Paddy's Lucerne)*, the hairs are minute, not stalked, mericarps 9-10, each with 2 ribs on the back and 2 apical spines are present;

S. atherophora

S. cordifolia

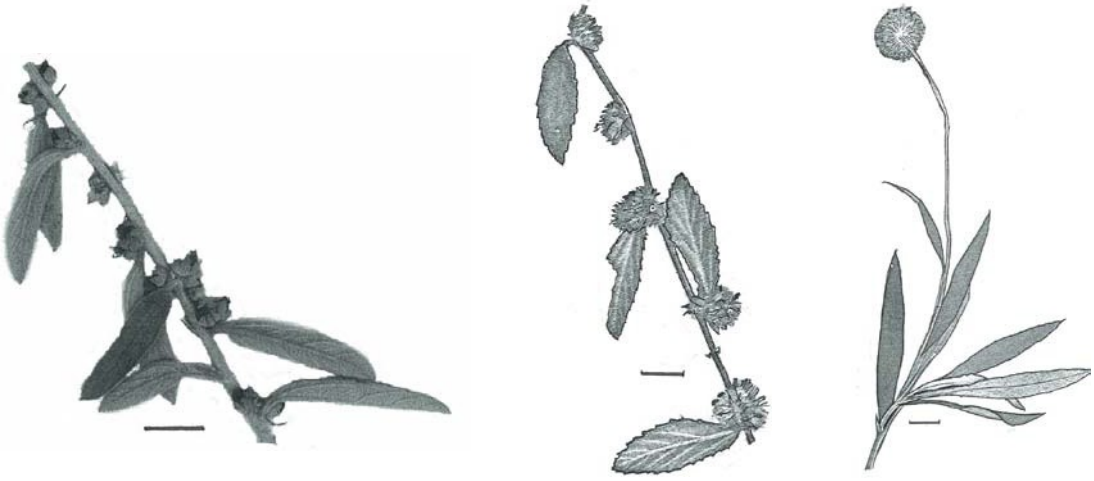


S. rhombifolia

Sida hackettiana (Spiked Sida, formerly ***Sida subspicata***), shrub to 1.5 m tall, leaves hairy to about 7 cm long. Flowers are sessile and often clustered to form dense groups, petals dry rusty-coloured, mericarps 4-6, stamens are fused to one another to form a column. This plant is often confused with ***Waltheria indica***.

Waltheria indica (Malvaceae/Byttneriaceae – formerly part of Sterculiaceae)
Waltheria named after Augustin Friedrich Walther (d. 1746) a German physician and botanist.
An erect, softly pubescent plant to about 1 m tall, leaves oblong 2-5 cm long, to 3.5 cm wide, veins prominent on lower surface of leaves, margins toothed. Flowers **yellow to orange** in dense clusters, 5 stamens free from one another. Fruit a hairy capsule with 1 seed. It is sometimes confused, with ***Sida hackettiana*** (Spiked Sida) which has flowers loosely arranged and the stamens are fused to each other to form a column.

Coronidium flavum formerly part of ***Helichrysum rupicola*** (Yellow Button – Asteraceae)
Helichrysum from the Greek ***helios*** – sun, and ***chrysos*** – golden, referring to the flower colour. Wilson (2008) formed the name ***Coronidium*** from the Greek word ***korone*** – crown and the diminutive –***idion*** in reference to the short crown of pappus bristles remaining on top of the seed after most of the bristles have broken off.
Plant to about 50 cm tall, lower surface of the leaves covered with woolly hairs, margins weakly serrated. **Yellow** flowers in heads on a long stalk to 25 cm long. The distinctive feature of this species is the yellow median involucral bract.



S. hackettiana *W. indica* *H. rupicola*

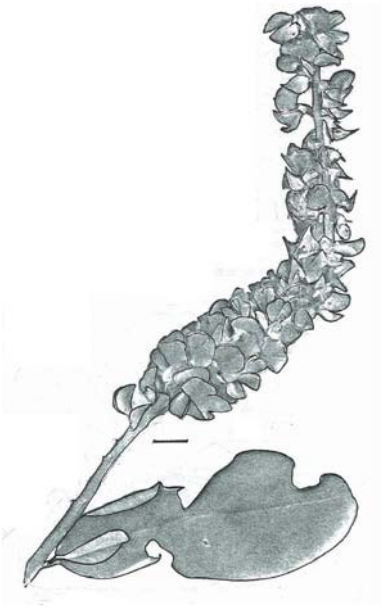
Crotalaria spp. (Rattlepods, see **Group 6.A** for other species – Fabaceae)

Crotalaria montana is a small erect shrub with narrow leaves 2-10 cm long; flowers **yellow** with darker streaks, back petal or standard 4-7 mm long, apex emarginate.
Crotalaria brevis is a similar species, but leaves are smaller 0.5-2 cm long, standard 6-9 mm long, but apex not emarginate.
Crotalaria mitchellii (Yellow Rattlepod) often forms clumps, leaves broadest about the middle, not wedge-shaped; flowers in dense racemes, **yellow**, calyx 4-6 mm long, wing petals equal to or shorter than the keel; pods to 3 cm long, grey-brown at maturity.
Crotalaria retusa (Wedge-leafed Rattlepod)* is much branched, leaves wedge-shaped, tip often slightly indented, stipules linear to narrow 1-2 mm long; flowers **yellow** sometimes streaked, calyx 8-20 mm long, wing petals longer than the keel; pods 3-5 cm long, much inflated, black.

Crotalaria spectablis (Not illustrated)* can be distinguished from the former by the ovate stipules 2.5-10 mm long.

NOTE: Small plants of ***Tithonia*** (**Group 8.F**); the yellow form of ***Afrohybanthus enneaspermus*** (**Group 7.D**); and the yellow variant of ***Nymphoides indica*** (**Group 7.E**) may key out here.

C. montana



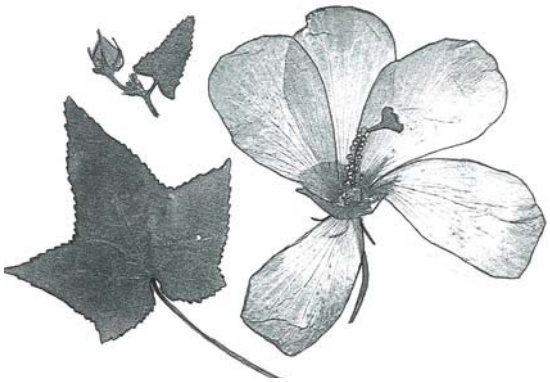
C. mitchellii

C. retusa

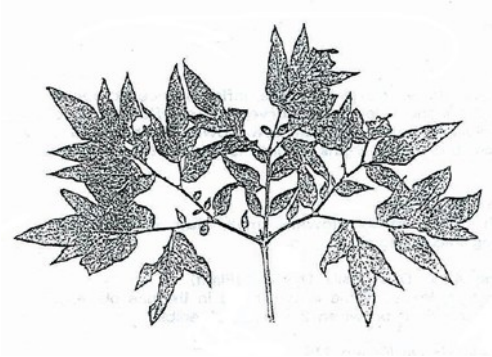
GROUP 7.B Leaves lobed or deeply dissected.

Abelmoschus moschatus subsp. ***tuberosus*** (Native Rosella, Musk Mallow – Malvaceae)
Abelmoschus, from the Arabic ***Abu-l-misk,*** referring to the musk-like smell of the seeds.
A small plant often trailing across the ground but may be somewhat erect, leaves to 10 cm long with 3-5 lobes, margins shallowly serrated. The large Hibiscus-type flowers have 5 attractive **white to red** petals with darker red centres. Fruit a capsule, hairy to 2.5 cm diameter.

Tacca leontopetaloides (Polynesian Arrowroot – Taccaceae)
Tacca, appears to be a Latinized form of the Indonesian word ***taka***.
These plants have deeply dissected leaves borne on very long petioles. The flowers are clustered on the end of a very long stalk; each **white** to **creamy-green** flower has a long 'string-like' appendage hanging down. Fruit a berry, green-yellow to 2-4 cm long. Also refer to page after key to **Group 7** for illustration.



A. moschatus



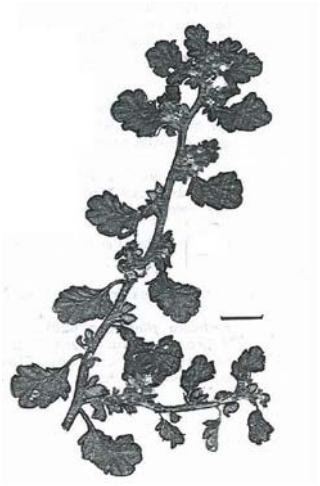
T. leontopetaloides x 1/3

Coldenia procumbens (Boraginaceae)

Coldenia, Cadwallader Colden, a Scottish physician was a correspondent of Linnaeus.
A prostrate, hairy plant with branches radiating from a central point, it occurs in moist places as in Horseshoe Bay. The leaves to 2.5 cm long, are wrinkled as though they have been folded. Flowers **white**; leaves and fruit glandular-hairy.

Urena lobata (Urena Burr, Pink Burr – Malvaceae)*

Urena is a name from Malabar.
A wiry subshrub with broadly ovate to lanceolate leaves, to 5-10 cm long, 3-5 cm wide, a prominent gland (↑) at the base of the midrib on the lower surface of the leaf. Flowers with 5 **pink** petals to 2 cm long; fruit a capsule, about 1 cm diameter, covered with small hooked spines which catch on clothes etc. Weedy.



C. procumbens

U. lobata

GROUP 7.C Leaf margins serrate, dentate or crenate, not also lobed.

Pterocaulon serrulatum (Ragweed, Fruit-salad Bush – Asteraceae)

Pterocaulon, from the Greek ***pteron*** – wing, and ***caulos*** – stem, referring to the winged stem.
Erect herb, leaves decurrent on the stem forming wings, margins serrate; flowers crowded into heads 2-4 cm long, **greenish to straw-coloured**.

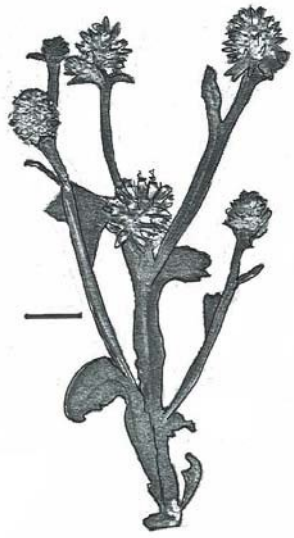
Pterocaulon sphacelatum (Applebush), has weakly toothed or even entire leaf margins, leaves woolly; flower heads ovoid to 2 cm, flowers range in colour from **green to mauve to purple**. Both species have fragrant or aromatic foliage sometimes quite strong.

Amaranthus viridis (Green Amaranth – Amaranthaceae)*

Amaranthus, from the Greek ***a*** – without, and ***marain*** – to wither, in some species the flowers appear to be everlasting.

Erect herb to about 40 cm tall with soft leaves to about 15 cm long when well developed. These leaves can be boiled and eaten; flowers **greenish**, in dense clusters, perianth segments 3, stamens 3. Seed black about 1-1.5 mm diameter

P. serrulatum



P. sphacelatum

A. viridis

Nymphaea gigantea (Native or Blue Waterlily – Nymphaeaceae)

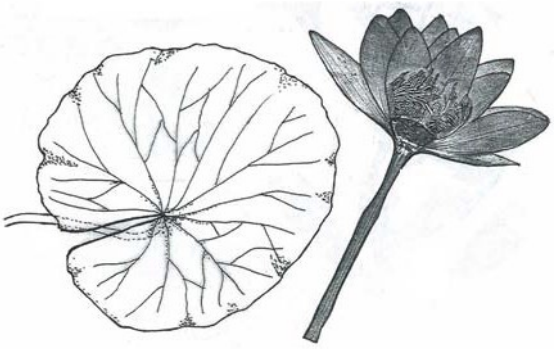
Nymphaea, from the Greek ***nymphe*** – a water nymph, referring to the habitat.

An aquatic plant with tubers growing in mud in lagoons and quiet waters, it has large, prominently veined leaves 20-60 cm diameter, margins dentate and base cordate. Flowers to 30 cm diameter, extend above the water on a long peduncle, petals **blue to white**, petals and stamens numerous. Seeds red.

Helicteres semiglabra (Malvaceae/Helicteraceae formerly part of Sterculiaceae)

Helicteres, from the Greek ***helikter*** – a twisted bracelet, an allusion to the twisted carpels found in some species.

An erect herb with stellate hairs, these are particularly noticeable on the grey capsule, which opens into 5 segments (carpels). Flowers small, **blue to mauve**.



N. gigantea x 1/5

H. semiglabra

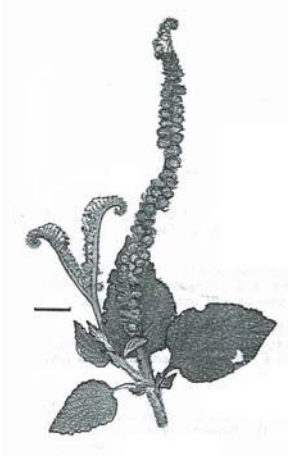
Heliotropium indicum (Heliotrope - Boraginaceae)

Heliotropium, from the Greek ***helios*** – sun, and ***trope*** – turning, the inflorescence was once thought to turn with the sun.

This herb has pubescent leaves with serrate margins. The inflorescence is 'boragoid' that is the flowers are borne on one side of a curved spike as in a 'forget-me-not'; flowers **pale blue or white** with a yellow throat.

Heliotropium pauciflorum has a similar inflorescence but it is often hard to recognize because there are only a few flowers, leaf margins are smooth. Flowers **white**.

Heliotropium peninsulare has been collected behind Horseshoe Bay. It differs from ***Heliotropium pauciflorum*** by the calyx having coarse hairs, rather than fine hairs, and the outer lobe is much broader.



H. indicum

H. pauciflorum

H. peninsulare

Grewia spp. (Malvaceae/Sparrmanniaceae formerly part of Tiliaceae)

Grewia, named after Nehemiah Grew (1641-1712), a physician and plant anatomist. Shrubs with leaves borne in 2 rows in the one plane, stellate or star-shaped hairs dense, particularly on the lower surface, usually 3-veined at the base. Flowers usually **white to greenish-yellow**. A number of species occur on the island.

Grewia savannicola (retusifolia) (Emu Berry, Dysentery Plant, Dog's Balls). Plant varies in height, rarely more than 1 m tall, leaves whitish pubescent on lower surface. Flowers with about 20 stamens per flower; fruit brownish, lobes lack hairs, 2-4-lobed drupe, edible.

Grewia australis is similar to the former but is often over 1 m tall, leaves are not as white on the lower surface and in fact often appear to lack hairs, stamens more than 40 per flower and the fruit is globular and 2-lobed.

Grewia scabrella is a shrub in dry rainforest growing to 2.5 m tall, it has broadly ovate leaves, pubescent on lower surface, brownish, ovary pubescent.

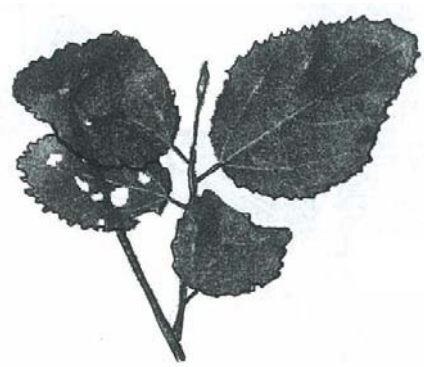
Grewia graniticola, this rare species is a shrub to 2 m tall, fruit lobes stellate-pubescent on the outside; the lower surface of the leaves is densely, grayish-white stellate pubescent.

Grewia latifolia may occur, leaves are ovate usually less than 10 cm long, margins toothed, may be somewhat lobed, flowers yellow, fruit to 1 cm across. and may be somewhat lobed. This species may be confused with the weed ***Grewia asiatica,*** common around Townsville, which is taller and has much broader and longer leaves, usually more than 10 cm wide.

G. savannicola

G. graniticolas

G. latifolia



G. scabella

G. australis

NOTE: See also ***Cyantillium cinereum*** (**Group 7.E**).

GROUP 7.D Leaf margins smooth, leaves linear to linear-lanceolate, <4 cm long.

Portulaca pilosa (Portulacaceae)

Portulaca, from the Latin ***portare*** – to carry, and ***lac*** – milk, referring to the mucilaginous nature of the sap. A variant of this spelling was first used by Pliny.

A prostrate, succulent shrub usually found growing in sandy areas. Leaves narrow to 2 cm long, fleshy. Flowers **pink to purple**, clustered in leaf axils and surrounded by hairs, hence the specific epithet. ***Portulaca oleracea*** (Purslane) has broader leaves, lacks the hairs and the flowers are yellow.

Styphelia (Leucopogon) cuspidata (Ericaceae formerly in Epacridaceae)

Styphelia referring to the tough leaves.***Leucopogon,*** from the Greek ***leukos*** – white, and ***pogon*** – beard, referring to the white hairs on the petals.

Low spreading shrub to 1 m tall. Leaves are linear-lanceolate with fine parallel veins and a sharp point (pungent) at the tip. Flowers **white**; petals 5, pubescent inside.

Phyllanthus virgatus (Phyllanthaceae formerly part of Euphorbiaceae)

Phyllanthus, from the Greek ***phyllon*** – leaf, and ***anthos*** – flower, in some species the flowers appear to be borne on the edge of the leaves.

Small glabrous plants to about 50 cm tall, leaves to about 1.5 cm long. Separate male and female flowers, perianth **pale green**, capsule to 2.5 mm diameter.

P. pilosa

S. cuspidatus

P. virgatus

Female flower

Male flower

Evolvulus alsinoides (Tropical Speedwell – Convolvulaceae)

Evolvulus, from the Latin ***evolvere*** – to untwist, i.e., it does not have a climbing habit.

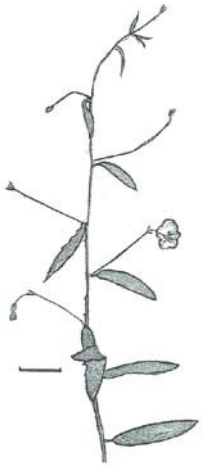
A prostrate or weakly ascending herb to 60 cm tall, it has bowl-like flowers. The petals are fused to each other, to 1 mm diameter when expanded, **blue to pale blue** or occasionally white. Fruit a globular capsule to 4 mm diameter

Afrohybanthus enneaspermus (Spade Flower – Violaceae)

Afro refers to Africa where the greatest diversity of the genus occurs. ***Hybanthus,*** from the Greek ***hybos*** – hump, and ***anthos*** – flower, since the sepals are not turned back as in another genus ***Viola.***

This small herb has linear leaves, flowers solitary, **blue** and the lower petal is much longer than the other 4. Fruit a capsule 4-9 mm long.

Afrohybanthus stellarioides has **yellow-orange** flowers. Fruit a capsule 5.5-7.5 mm long.



E. alsinoides

A. enneaspermus

A. stellarioides

Indigofera linifolia (Fabaceae)

Small herb to about 40 cm tall, leaves linear, pubescent, whitish. Flowers are pea-shaped, **reddish**, and are followed by small, globular, whitish pods.

Striga curviflora (Witchweed – Orobanchaceae/Scrophulariaceae)

Striga, from the Latin ***striga,*** meaning a furrow or rigid bristle.

Relatively unbranched herb, rough to the touch, leaves linear, lower opposite, upper ones alternate. Flowers usually **purplish**, 2-lipped, tube bent. This species may be distinguished from some plants with a similar appearance not recorded from the island, ***Buchnera*** spp., by calyx-tube being only slightly longer than the lobes and the corolla is distinctly bilabiate. Species of both genera are semi-parasitic on roots. Fruit a capsule.

Wahlenbergia caryophylloides (Australian Bluebell – Campanulaceae)

Wahlenbergia, named for Georg Wahlenberg (1780-1851) of Uppsala, a botanist.

Small herb, flowers campanulate, corolla **blue** with 5 spreading lobes. Fruit a small capsule with calyx lobes projecting above. A least one other species of bluebell is recorded for the island.

NOTE: ***Trichodesma zeylanicum*** (**Group 5.B**) may also key out here as the upper leaves are alternate.

I. linifolia

S. curviflora

W. caryophylloides

GROUP 7.E Leaves various <u>but if</u> narrow then more than 4 cm long.

Persicaria attenuata (a Knotweed – Polygonaceae)

Persicaria, an ancient name, the leaves thought to show some similarities to those of a peach.

An erect herb usually growing in moist areas; the pubescent leaves have a fringed (ciliate) pale-coloured sheath (ocrea) encircling the stem. Flowers **white**. Fruit a dark brown nut to 2.5 mm long.

Cyanthillium cinereum (Vernonia – Asteraceae)

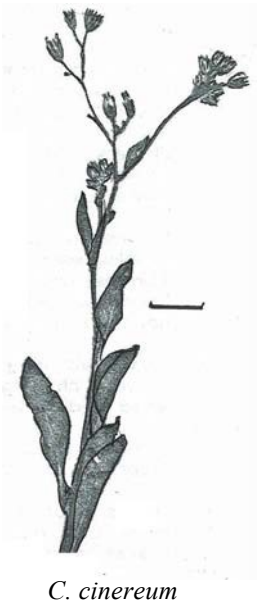
Cyanthillium, name refers to the colour of the flowers.

A common weed, leaves very variable in size and shape; flowers in terminal heads usually **purplish**. Fruit an achene with silky pappus to 5 mm long.

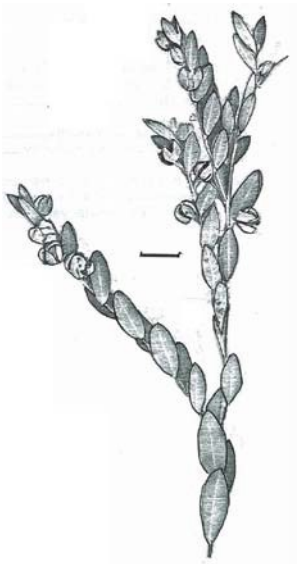
Phyllanthus fuernrohrii (Phyllanthaceae formerly part of Euphorbiaceae)

A greyish, pubescent plant to about 40 cm high. Separate male and female plants may be solitary or a few clustered together. Capsule pubescent, 3-4 mm diameter. Other species of this genus may be found, particularly in gardens, as weeds.

P. attenuata



C. cinereum



P. fuernrohrii

Solanum ellipticum (Potato Bush – Solanaceae)

Solanum, from a Latin name for this plant used by Pliny, ***solamen*** – solace or comfort.

Plant to 1 m tall, leaves covered with stellate hairs, often tufted. Prickles present on stems, leaves and flowers. Flowers **purple**; berry globular, yellowish-green with a purplish tinge.

Nymphoides indica (Water Snowflake, Star Fringe – Menyanthaceae)

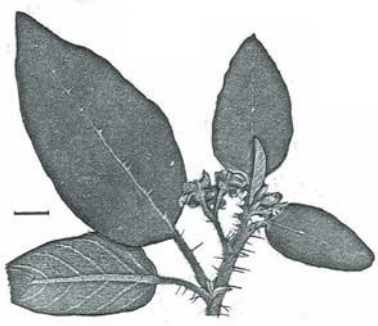
Nymphoides, from the Greek ***nymphaea*** – waterlily, and ***oides*** – like, similar to the waterlilies.

An aquatic plant rooting in the mud, with the leaves floating on the surface, leaves to about 30 cm long. Flowers usually in clusters, petals **white**, or white with a yellow centre to 5 cm diameter, margins strongly fringed. Fruit a capsule.

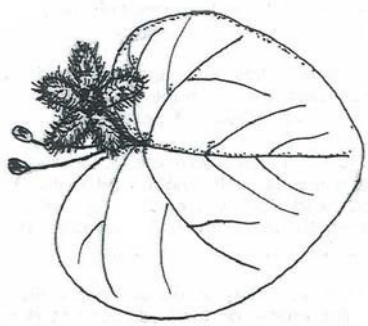
Drosera spatulata (Sundew – Droseraceae)

Drosera, from the Greek ***droseros*** – dewy, referring to the appearance of the glandular secretions on the leaves.

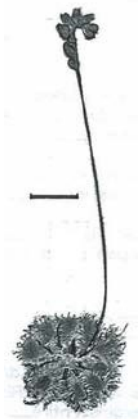
An insectivorous plant found in moist seepage areas. There is a rosette of leaves at the base, which may be green to reddish and covered with glandular hairs. Flowers **white to pink,** ovary with 3-4 styles. Fruit a small capsule with numerous seeds.



S. ellipticum



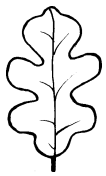
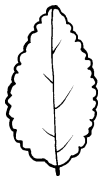
N. indica



D. spatulata

KEY TO GROUP 8

Shrubs or trees usually more than 1.5 m tall.

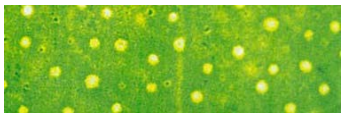
					
A. flower spike	B. phyllode and pod	C. leaf lobed	D. leaf dissected	E. leaf margins crenate	F. leaf margins serrate

NOTE: The following trees and shrubs, which are deciduous when flowering, will not come out in this key unless you can find a leaf. There are usually some old ones on the ground or even a few hanging on the tree.

These plants are: ***Brachychiton*** (**Group 8.G**), ***Cochlospermum*** (**Group 8.G**), ***Cordia*** (**Group 8.K**), ***Gyrocarpos*** (**Group 8.G**), ***Sterculia*** (**Group 8.O**), ***Terminalia*** (**Group 8.M**), ***Turraea*** (**Group 8.R**), and the mangrove, ***Xylocarpus*** (**Group 1.H**).

1 Leaves with oil glands, readily visible with a hand lens if not to the naked eye, aromatic when crushed, eucalypt or citrus smell. (Chiefly eucalypts, paperbarks, bottlebrushes and similar) go to 2

1* Leaves lacking easily seen oil glands, if aromatic when crushed, then smell not of an eucalypt; citrus or even an apple smell go to 5



Oil glands/dots as seen with a good hand lens

2 Trees; petals fused to form an operculum or cap, stamens numerous and free (eucalpyts) go to 3

2* Shrubs or trees, petals not fused to form an operculum or cap, stamens if numerous then usually united into bundles or stamens are fewer than 10 (Myrtaceae-Rutaceae) go to 4

3 Bark smooth throughout but occasionally some rough fibrous or persistent bark at base go to **Group 8.A**

3* Persistent, fibrous bark for at least 2-3 m or usually more from the base go to **Group 8.B**

4 Flowers clustered into spikes (see sketch A), old capsules usually remain on the old wood for months; bark usually papery go to **Group 8.C**

4* Flowers not in spikes and capsules are not persistent on old wood go to **Group 8.D**

5 Leaves (phyllodes) with longitudinal veins, **and** stamens numerous; **and** fruit is a pod or legume (wattles) (see sketch B) go to **Group 8.E**

5* Leaves without parallel veins, leaves may be minute so as to appear absent, or be short and thick to 1 cm long; fruit various but not a pod or bean-like go to 6

6 Leaves with margins variously lobed (C) or deeply dissected (D) go to 7

6* Leaves with smooth or toothed margins **but not** as above go to 8

7 Shrubs at maturity, sometimes scrambling — go to **Group 8.F**
7* Trees at maturity, deciduous when flowering — go to **Group 8.G**

8 Leaves minute so that plant appears leafless, **or** thick and rigid and less than 1 cm long, veins obscure — go to **Group 8.H**
8* Leaves not so reduced, veins visible — go to 9

9 Leaves strap-like, narrow with prominent longitudinal vein — go to **Group 8.I**
9* Leaves not strap-like, veins obviously branching — go to 10

10 Fruits indehiscent, (i.e., do not break open) at maturity, often fleshy — go to 11
10* Fruits dry at maturity, breaking open along 1 or more lines — go to 16

NOTE: If you don't have fruits, you may need to flip pages!!

11 Fruits white at maturity or even semi-translucent — go to **Group 8.J**
11* Fruits coloured at maturity — go to 12

12 Leaves palmately (see sketch G) or 3-veined at the base (H) **and/or** margins crenate/serrate (E/F) (**CAUTION** – STINGING TREE HERE) — go to **Group 8.K**
12* Leaves with pinnate venation, margins smooth — go to 13

13 Leaves densely pubescent on lower surface — go to **Group 8.L**
13* Leaves only sparsely pubescent or hairless (glabrous) — go to 14

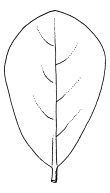
14 Leaves obovate i.e., broadest above the middle (see sketch I), flowers in spikes (see sketch A), fruit compressed with two lateral ridges (may be small – *Terminalia*) — go to **Group 8.M**
14* Features of the leaves, flowers and fruits not as above — go to 15

15 Flowers with a diameter of usually more than 1 cm, mature leaves rarely less than 7 cm long — go to **Group 8.N**
15* Flowers small to insignificant, mature leaves usually less than 7 cm long — go to **Group 8.O**

16 Leaves palmately (sketch G) or 3-veined at the base (H) — go to **Group 8. P**
16* Leaves with pinnate venation (sketches D-F) — go to 17

17 Leaves arranged in the one plane (J – distichous), even on a short branch, thus leaves often appearing as a compound leaf — go to **Group 8.Q**
17* Leaves spirally arranged (K), not in one plane — go to 18

18 Plants deciduous when flowering commences, petals white about 3 cm long, stamens fused to form a staminal tube — go to **Group 8.R**
18* Plants with well-developed leaves when flowering — go to **Group 8.S**

				
G. leaf veins palmate	H. leaf 3-veined at base	I. leaf obovate	J. leaves distichous	K. leaves spirally arranged

GROUP 8.A Bark normally smooth throughout but sometimes rough persistent bark at the base.

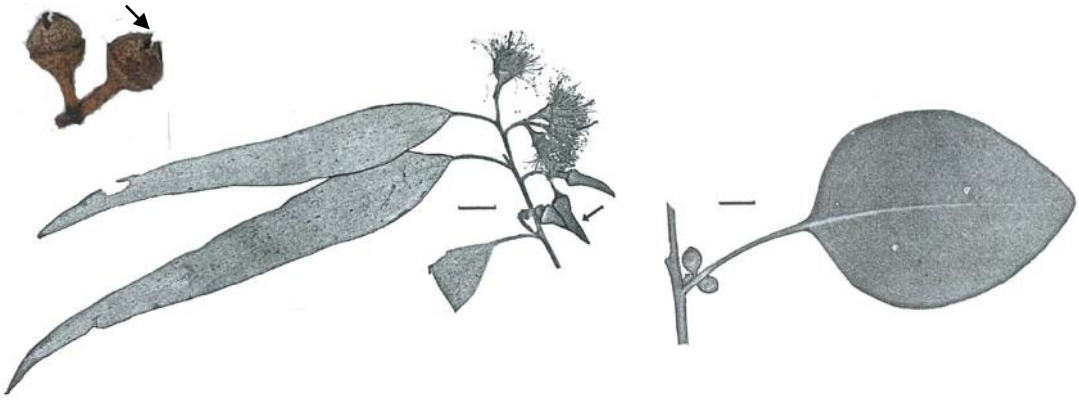
Eucalyptus tereticornis (Forest Red Gum, Blue Gum – Myrtaceae)

Eucalyptus, from the Greek ***eu*** – well, and ***calyptos*** – covered, referring to the operculum or cap.

Tall tree, trunk often has a silvery and white mottled appearance, some rough persistent bark at the base. Juvenile leaves are usually much wider than adult leaves and bluish-green. The operculum (↑) is long to 2 cm and horn-shaped. Capsular valves strongly exserted (↑) above the rim. The River Red Gum, ***Eucalyptus camaldulensis*** may be found as a cultivated specimen, recognized by the bluish-green foliage, shorter trunk, and shorter operculum usually less than 1 cm long.

Eucalyptus platyphylla (Poplar Gum, Cabbage Gum, White Gum – Myrtaceae)

Bark smooth throughout white to grey, shed in broad strips annually; leaves broad, hence 'platyphylla' which means flat or plate-like leaf. Operculum or cap is rounded capsule about 7-5 mm, with 3-4 valves exserted.



E. tereticornis *E. platyphylla*

Corymbia dallachiana (Dallachy's Gum, formerly ***Eucalyptus*** – Myrtaceae)

Corymbia from the Greek ***korymbos*** – cluster, referring to the inflorescence.

Bark smooth, white, scattered brownish flakes often present near the base of the trunk. Leaves are wavy on the margins with numerous fine, relatively parallel lateral veins. Capsule is urn-shaped, papery and easily crushed 9-13 mm long, 7-10 mm wide.

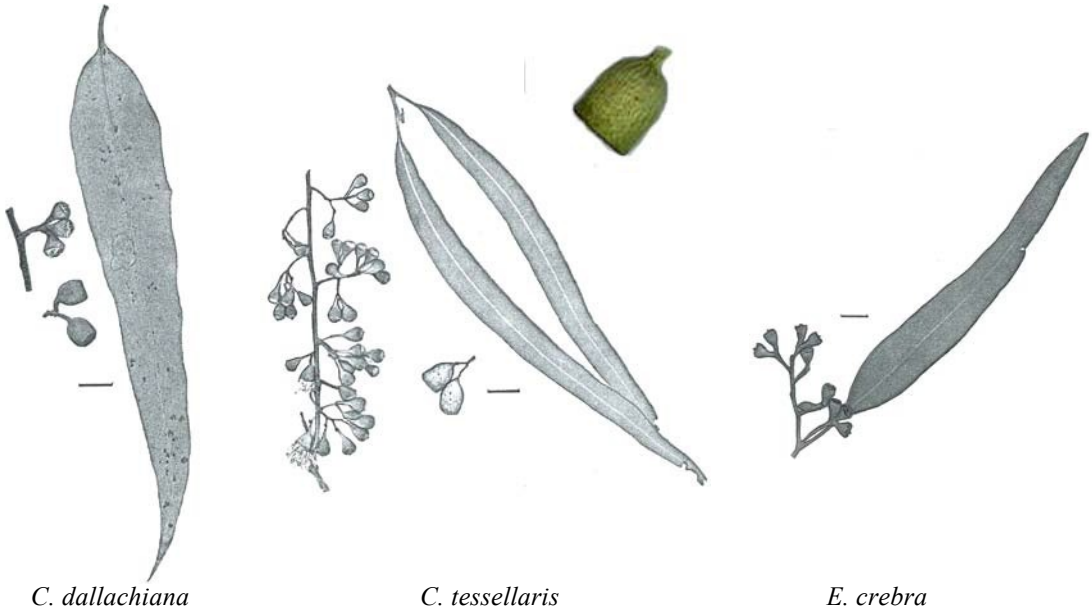
GROUP 8.B Persistent fibrous bark for a minimum of 2-3 m at base usually more. (Look on ground for old fruits, if necessary)

Corymbia tessellaris (Moreton Bay Ash, Carbeen, formerley ***Eucalyptus*** – Myrtaceae)

This tree has a distinctive black stocking of tessellated bark at the base, bark above is smooth and white. Leaves same shade on both sides, lateral veins relatively parallel to one another. Oil glands few and difficult to see. Capsule urn-shaped to 12 mm long, papery, easily crushed.

Eucalyptus crebra (Narrow-leafed Ironbark – Myrtaceae)

Bark dark, deeply furrowed, persistent to the branchlets. Capsule 4-6 x 4.5-7.5 mm, valves level with the rim or exserted. *E. drepanophylla* is sometimes included in *E. crebra.*



C. dallachiana *C. tessellaris* *E. crebra*

Corymbia erythrophloia (Variable-barked Bloodwood, Red-barked Bloodwood, formerly as ***Eucalyptus*** – Myrtaceae)
Bark persistent, flaky, upper branches may be smooth. Outer flakes when shed reveal rusty-red inner bark giving a mottled appearance to the trunk. Leaves with lateral veins relatively parallel to one another. Capsule firm, urn-shaped. Tree often poorly formed.

Corymbia intermedia (Pink Bloodwood, formerly ***Eucalyptus*** – Myrtaceae)
Bark persistent to the branchlets, irregularly tessellated. Tall tree in wetter areas. Petiole often pinkish, lateral veins in leaves relatively parallel to one another. Capsules ovoid to urceolate only slightly longer than wide, outside covered with small spots or 'warts', rim often flares, valves enclosed.

Corymbia clarksoniana (Clarkson's Bloodwood, part of the former range of ***Corymbia*** (***E.***) ***polycarpa*** – Myrtaceae)
Bark brownish-grey, tessellated, flaky persistent to the branchlets, leaf venation similar to the others. Capsule at least 1.5 times as long as wide to 2.2 cm long, valves deeply enclosed within the urn.

C. erythrophloia *C. intermedia* *C. clarksoniana*

Eucalyptus acmenoides (White Mahogany, sometimes treated separately as ***E. portuensis***) - Myrtaceae)

Bark persistent to smaller branches, fibrous and stringy, longitudinally fissured, grey; leaves discolourous i.e., both surfaces are not the same colour. Capsule 5-7 x 5-7 mm, valves level with the rim.

Eucalyptus exserta (Queensland Peppermint, Yellow Messmate – Myrtaceae)

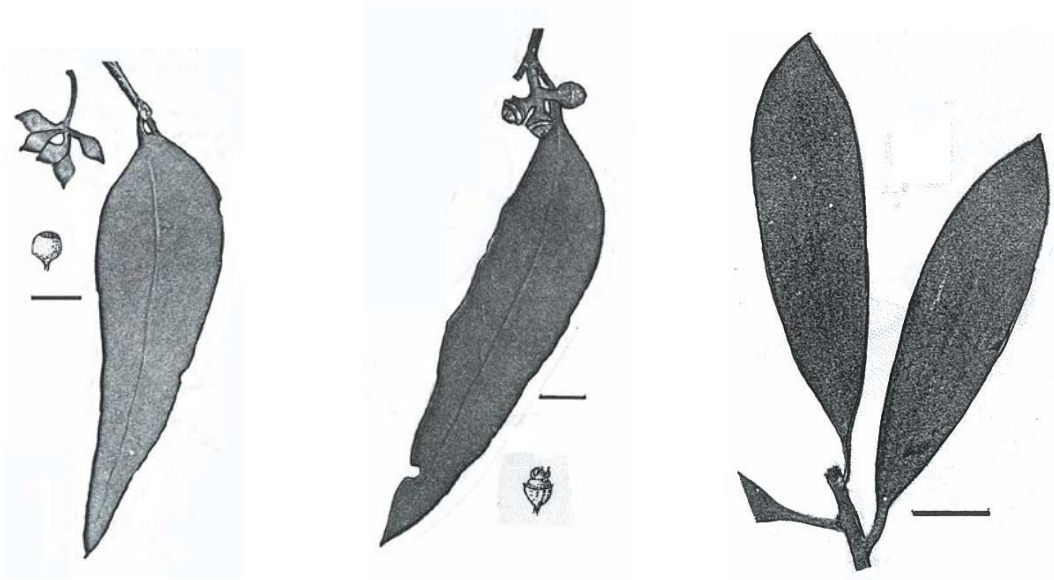
Bark fibrous, rough and persistent on the main branches, smooth on upper branches. Capsules to 8 mm long, valves 4, strongly exserted above the rim, tips often slightly recurved.

GROUP 8.C Bark frequently papery, Bottlebrush and Paperbarks.

Melaleuca nervosa (Paperbark, Woodland Paperbark - Myrtaceae)

Melaleuca, from the Greek ***melas*** – black and ***leukos*** – white, referring to the contrasting colours of the bark in some species.

A small tree to 10 m tall, with papery bark, the lanceolate leaves to 9 cm long, are greyish pubescent when young, veins longitudinal. Flowers in spikes, usually several clustered together, **white or creamy**, occasionally red, staminal filaments 10-23 mm long.



E. a *E. exserta* *M. nervosa*

Melaleuca dealbata (Cloudy Teatree, Silver-leafed Paperbark – Myrtaceae)

A tall tree often found near brackish water, may be distinguished by stamens to 7.5 mm long and the silky and/or crisped hairs on the leaves and the calyx lobes. Flowers **creamy-white**, good source of nectar. Settlers used Melaleucas as a tea substitute, hence the common name of 'tea-tree'. Aboriginal uses are numerous.

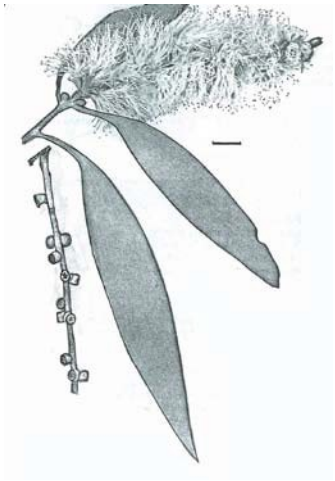
Melaleuca recurva (Tinaroo Bottlebrush, formerly ***Callistemon recurvus***, Bottlebrush – Myrtaceae)

A shrub with linear leaves found near Mt Cook. Flowers **red** in spikes. ***Melaleuca viminalis*** (Weeping Bottlebrush, ***Callistemon viminalis***) and various cultivars are often found in gardens.

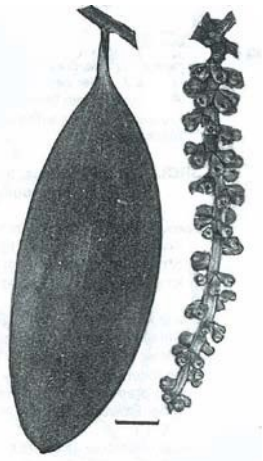
Melaleuca leucadendra (Weeping Paperbark, Weeping Teatree. – Myrtaceae)

Tall tree usually associated with streams and fresh water; bark papery, leaves pendulous, with longitudinal veins, glabrous. Flowers **white to cream** in loose spikes, staminal filaments 7-10 mm long, calyx lobes glabrous, i.e., lack hairs.

M. recurva



M. leucodendra



M. viridiflora

Melaleuca viridiflora (Broad-leafed Teatree or Paperbark – Myrtaceae)
Small tree with thick, broadly lanceolate leaves to 22 cm long, veins longitudinal; bark fibrous or somewhat papery. Flowers in dense creamy-green spikes to 10 cm long, occasionally red flowering forms may be encountered.

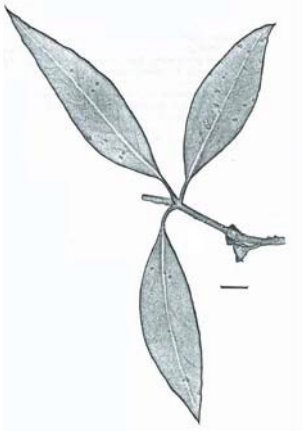
GROUP 8.D Flowers not in spikes, capsules not persistent.

Lophostemon suaveolens (Swamp Mahogany, Swamp Box – Myrtaceae)
Lophostemon, from the Greek ***lophos*** – crest, and ***stemon*** – stamens.
Tall tree with reddish/grey flaky bark, often found along watercourses. Flowers **white**, sepals broad to 1.5 mm long, stamens grouped into 5 bundles. Capsule 5-8 mm diameter surrounded by calyx. Some old red leaves usually present.

Lophostemon confertus (Brush Box – Myrtaceae)
Tree with persistent scaly bark on the trunk, upper branches may be smooth. Leaves crowded at the ends of branchlets. Flowers **white**, stamens grouped into 5 bundles. Capsules to 1-1.5 cm diameter, woody, surrounded by calyx. Usually found in the higher areas of the Island along walking tracks.

Lophostemon grandiflorus (Northern Swamp Mahogany, Northern Swamp Box – Myrtaceae)
Tree with persistent, grey, fibrous bark usually found along seasonal watercourses. Flowers **whitish** in groups of 3, sepals to 3 mm long. Stamens fused to form 5 bundles. Capsule thin-walled 5 -8 mm diameter, surrounded by calyx

L. suaveolens



L. confertus

L. grandiflorus

Geijera salicifolia (Scrub Wilga, Green Satinheart – Rutaceae)

Geijera, J. Geijer was a Swedish botanist who lived in the 17th Century.

A hardy tree with broad leaves, obvious oil dots with a lemon or citrus smell when crushed. Flowers with 5 **white** petals, arranged in panicles; fruit forms dry, pale cocci (↑) lobe-like, with black seeds.

GROUP 8.E Wattles, leaves with longitudinal veins, fruit a pod, stamens numerous.

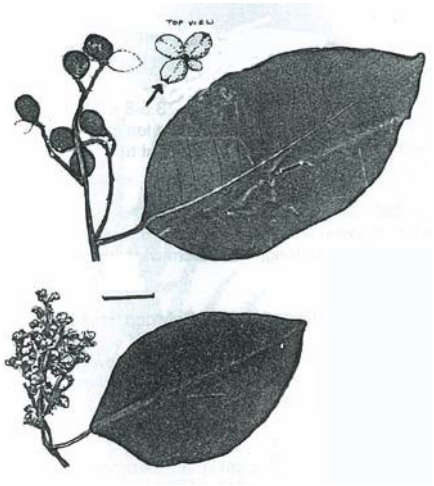
Acacia flavescens (Red or Yellow Wattle – Mimosaceae/Fabaceae)

Acacia from a name used by Dioscorides

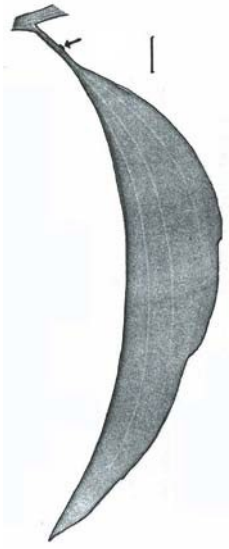
Small tree with furrowed shaggy bark, branchlets angular, yellowish, hence the name; phyllodes 9-24 cm long, 1.5-5 cm wide, 2 or the 3 longitudinal veins form an indentation where they meet at the margin. Extra-floral nectaries or glands (↑) also present at these points. Flowers in heads, **pale yellow/cream**; pod flat 6-12 cm long, 1.5-2 cm wide. Flowering autumn.

Acacia holosericea (Silver Leaf Wattle, Silky Wattle – Mimosaceae/Fabaceae)

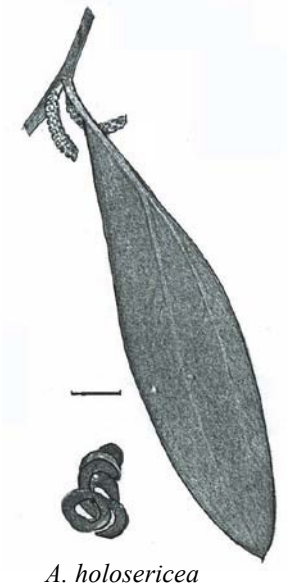
Shrub with angular branchlets, rarely glabrous. Phyllodes to 25 x 1.5-9.5 cm, grey-green, covered by fine silky hairs, i.e., *sericeus*; three longitudinal veins more prominent than the rest. Flowers in spikes, 2-6 cm long, bright **yellow**; pods coiled 2.5-5 mm wide, aril often bright yellow. Occurs in Horseshoe Bay



G. salicifolia



A. flavescens



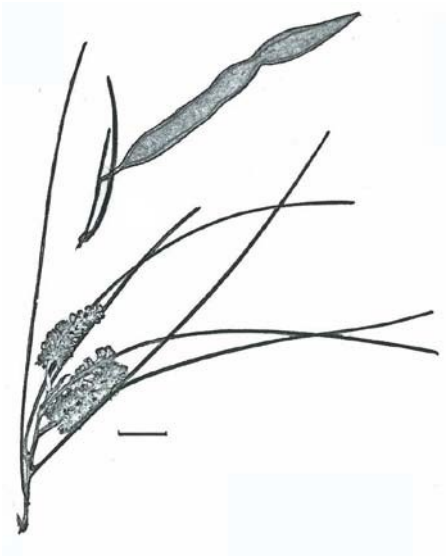
A. holosericea

Acacia jackesiana (Mimosaceae/Fabaceae)

Small shrub to 1 m, often sprawling amongst the grass, particularly on the ridges near Horseshoe bay; phyllodes linear to 22 cm long, prominently ribbed. Flowers in spikes to 2.5 cm long, bright **yellow**; pods flat 6-8 cm long, 8 mm wide. Flowering January, February.

Acacia simsii (Sim's Wattle, Heathland Wattle – Mimosaceae/Fabaceae)

Shrub, phyllodes 5-14 cm long, 2-7 mm wide, flowers in heads (↑) bright **yellow**; pod flat 5-8 cm long, 4-7 mm wide, raised over the seeds, alternating on each side (↑).



A. jackesiana

A. simsii

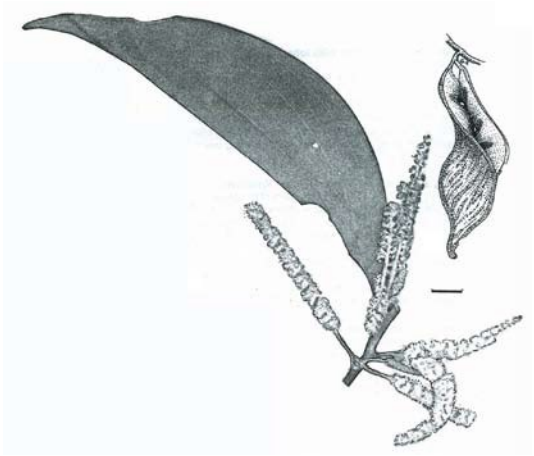
Acacia aulacocarpa (Golden-flowered Salwood, Brown Salwood, Hickory Wattle – Mimosaceae/Fabaceae)

This species has a similar, but smaller pod than in the next species. It prefers to be associated with moister areas and along water courses. Spikes 1-2 per axil, golden **yellow**; pods to 8 cm long and 2 cm wide, aril pale. Closely related species are ***Acacia celsa*** and ***Acacia disparrima***, but neither of these species occur on the Island. These two species were once part of what was referred to as a 'complex' because the specimens hadn't been studied in detail to fully understand was it just one very variable species or a number of species, so until they were studied they were lumped in together under ***A. aulacocarpa***.

Acacia crassicarpa (Thick-podded Salwood, Lancewood, Northern Wattle – Mimosaceae/Fabaceae)

This shrub or small tree has thick (*crassi*) woody pods which are prominently veined, 4-12 cm long, 2.5-4.5 cm wide, aril pale and folded under the seed. Leaves 11-20 cm long, 1.5-3.5 cm wide, veins yellowish. Flowers in spikes, 3-7 cm long, 2-6 spikes per axil, **pale yellow**. This species tends to found on older dune systems.

A. aulacocarpa



A. crassicarpa

Acacia leptostachya (Townsville Wattle – Mimosaceae/Fabaceae)

Shrub with angular branchlets. Phyllodes usually slightly curved, 3.5-8 x 0.5-1 cm; numerous very fine longitudinal veins present; silvery sheen to the leaves because of fine, silky appressed hairs. Flowering spikes usually paired, bright **yellow**; pod flat to 6 cm long, 0.3 mm wide.

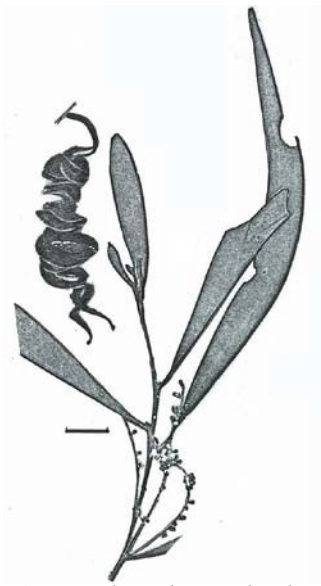
Acacia spirorbis subsp. ***solandri*** (Mimosaceae/Fabaceae)

Bushy tree; phyllodes falcate to 20 cm long and up to 2 cm wide, major veins (usually 2) rarely fuse with lower margin, minor veins numerous, 3-5 per mm. Flowers not densely packed in spikes, 3-7 cm long, **yellow;** pods linear, coiled, flat to 12 cm long and 3-5 mm wide, aril bright yellow, folded below the seed.

Acacia polystachya (Not illustrated) (Mimosaceae/Fabaceae)

Tree found between Picnic and Cockle Bays, major veins of the phyllodes (to 25 x 3.2 cm) run together on the lower surface near the base (2-3 occasionally 4), minor veins 5-9 per mm. Flowers in spikes not densely packed, about 4 cm long. Pod linear and twisted to 13 cm long, 6-10 mm wide, aril bright yellow and encircles the seed, and not folded below it as in ***Acacia spirorbis***.

A. leptostachya



A. spirorbis subsp. *solandri*

GROUP 8.F Shrubs with lobed leaves, sometimes scrambling.

Hibiscus meraukensis (Merauke Hibiscus – Malvaceae)

Hibiscus, a Greek name for mallow.

The stems of this shrub may be prickly. Leaves usually variously lobed; margins serrate, prominent nectary or gland (↑) near base of midrib on the lower surface. Calyx lobes lack stellate or star-shaped hairs but have prickles on the rib. Petals **white** with pink, or mainly **pink** to 10 cm diameter. Fruit a spiky capsule splitting into 5. Flowering late summer. See also ***Hibiscus divaricatus*** (**Group 8.S**).

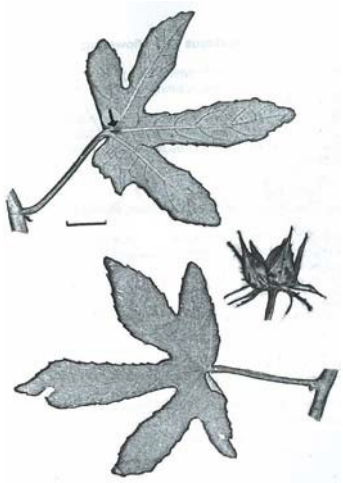
Rubus moluccanus (Molucca Raspberry – Rosaceae)*

Rubus, this is the Latin name for a plant of this genus.

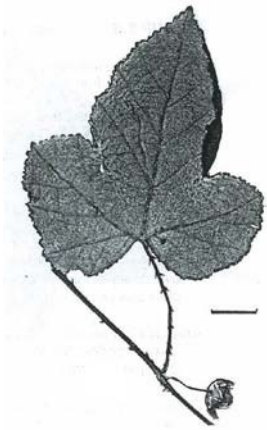
A straggling shrub with prickly stems by which it scrambles. Leaves lobed, hairy on the lower surface. Flowers **pinkish-red**; fruits red and fleshy, edible, but should be washed well before eating!

Solanum torvum (Devil's Fig, Thornapple – Solanaceae)*

A spreading shrub to about 3 m, recurved prickles are scattered on the stems and on the lobed leaves, stellate or star-shaped hairs present. Inflorescence branched with up to 100 **white** flowers; fruit a berry, drab yellow in colour, drying black. Weed.



H. meraukensis



R. moluccanus

S. torvum

Solanum sporadotrichum (Not illustrated) (Solanaceae)

This rare species may have smooth or lobed margins, numerous prickles are present on the branches but rare on the leaves, inflorescence with few flowers.

Tithonia diversifolia (Tithonia, Mexican or Japanese Sunflower – Asteraceae)*

Tithonia, was named for Tithonus, the companion of Aurora, the goddess of the dawn.

A spreading plant to about 3 m, often growing in clumps. Leaves deeply lobed. Inflorescence up to 10 cm across, flowers **yellow**, pappus of scales. A garden escapee.

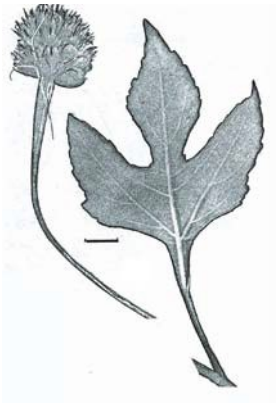
Jatropha gossypiifolia in **Group 4.A** will key to here if the milky latex is not obvious.

GROUP 8.G Trees with lobed leaves, all deciduous when flowering.

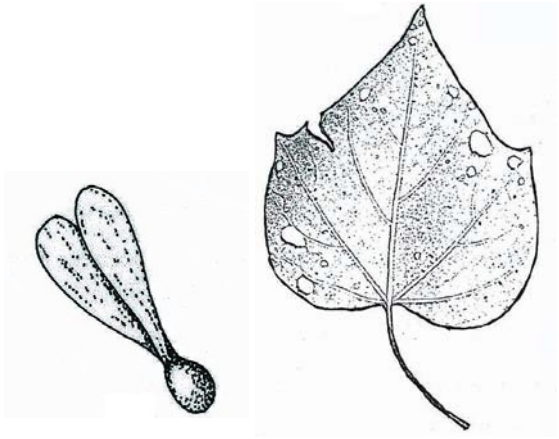
Gyrocarpus americanus (Helicopter Tree, Twirly Whirly Tree, Stinkwood – Hernandiaceae)

Gyrocarpus, from the Greek ***gyros*** – round and ***karpos*** – fruit, referring to the winged fruits which twist or gyrate, as they fall from the tree.

A tall deciduous tree, growing around the West Point area, it has smooth bark and warty lenticels; the twigs have a peppery smell. Leaves tend to be crowded towards the ends of the branches. Flowers **cream to yellow**, small with unpleasant smell; fruit has two wings, 4-6 cm long.



T. diversifolia



G. americanus

Brachychiton australis (Broad-leafed Bottle Tree – Sterculiaceae)

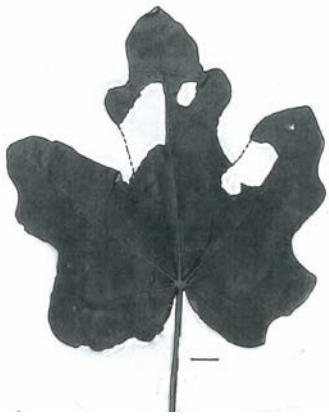
Brachychiton, from the Greek ***brachys*** – short, and ***chiton*** – outer garment, alluding to the loose outer covering of the seed.

Tall tree, deciduous when flowering, bark smooth, lenticels in vertical lines; trunk eventually enlarges to form the characteristic bottle. Leaves usually palmately lobed, glabrous i.e., lacks hairs; petioles dark-coloured. Flowers **pink to red**; fruit a follicle, pod-like, broad, 7-11 cm long, seeds bright yellow, surrounded by irritant hairs.

Brachychiton bidwillii (Little Kurrajong – Sterculiaceae)

Small tree 2-5 m tall, often multi-stemmed. Leaves deeply 3-5 lobed, softly pubescent i.e., hairs present, on both sides. Flowers **pink to red**; fruit a follicle, pod-like, 8-12 cm long, covered with rusty stellate hairs. Brown seeds are surrounded by irritant hairs. Uncommon, West Point area.

B. australis

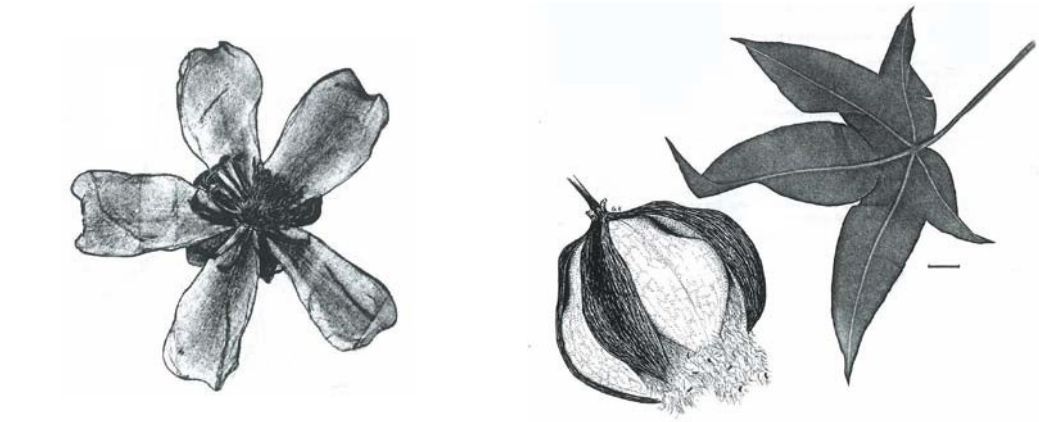


B. bidwillii

Cochlospermum gillivraei (Kapok Tree – Cochlospermaceae)

Cochlospermum, from the Greek ***kochlos*** – to twist or turn, and ***sperma*** – seed, the seeds are coiled.

Tree, deciduous in spring; leaves palmately or deeply lobed. Flowers with 5 **yellow** petals to 4 cm long, numerous red stamens in the centre. Fruit a capsule 6-9.5 cm long, the valves open to expose an inner papery membrane, so that the mature capsule appears two-toned. The numerous seeds are covered with cottony hairs.



C. gillivraei

NOTE: See also ***Sterculia quadrifida*** **Group 8.P**.

GROUP 8.H Leaves minute or thick, rigid <1 cm long.

Opuntia sp. (Not illustrated, Prickly Pear – Cactaceae)*

Opuntia, the name of this spiny plant is associated with the ancient Greek town of Opus or the surrounding region.

Introduced weed. Plant is succulent, stems flattened into obovate sections about 30 x 15 cm; bristles and spines present, representing leaves. Flowers **yellow**. Fruit edible, pear-shaped, 4-6 cm long, reddish.

Casuarina equisetifolia subsp. ***incana*** (Coast She-oak, Beach She-oak, Whistling Pine – Casuarinaceae)

Casuarina, the long drooping branchlets are thought to resemble the feathers of the Cassowary, from the Malay word ***casuari***.

A tree found along the foreshores, with pendulous drooping branchlets; leaves greatly reduced, leaf-teeth 6-8 per node/joint. Male flowering spikes brown, female reddish. Fruits are crowded into cones 1-1.7 cm long, 1-1.7 cm wide.

Allocasuarina torulosa (Forest She-oak, Baker's Oak – Casuarinaceae)

Allocasuarina, from the Greek ***allos*** – other; it is distinct from the genus ***Casuarina.***

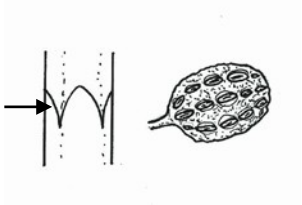
This erect tree found on the slopes of the Island has jointed branchlets similar to the previous species but there are only 4 leaf-teeth (↑) per node. Male spikes rusty-coloured. Cones 2-3 cm long, 1.5-2 cm wide.

Araucaria cunninghamii (Hoop Pine – Araucariaceae)

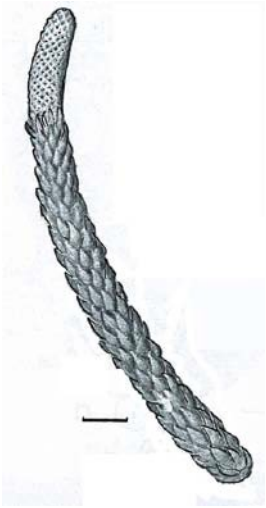
Araucaria, the first specimen was collected in the province of Arauco in southern Chile.

This large tree is prominent on rocky outcrops. It has a characteristic crown shape, often a bit battered! Leaves are rigid, pointed and curved, no obvious veins visible. Seeds borne in cones to 10 cm long.

C. equisetifolia



A. torulosa



A. cunningamii

GROUP 8.I Leaves strap-like with prominent longitudinal veins.

Grevillea parallela (Beefwood, Silver Oak – Proteaceae)

Grevillea, named after Charles F. Greville, the founder of the Royal Horticultural Society, who liked to grow rare plants.

Tree with long strap-like leaves, undersurface white with 1-5 longitudinal veins. Leaves sometimes very deeply dissected, both forms may be on the one plant. Flowers **white to cream**, in racemes to 10 cm long, style hooked in bud, fruit a rounded 2-2.5 cm diameter follicle, which splits to release 1-2 winged seeds. ***Grevillea striata*** also known as 'Beefwood' has 7-13 longitudinal veins.

Persoonia falcata (Geebung – Proteaceae)

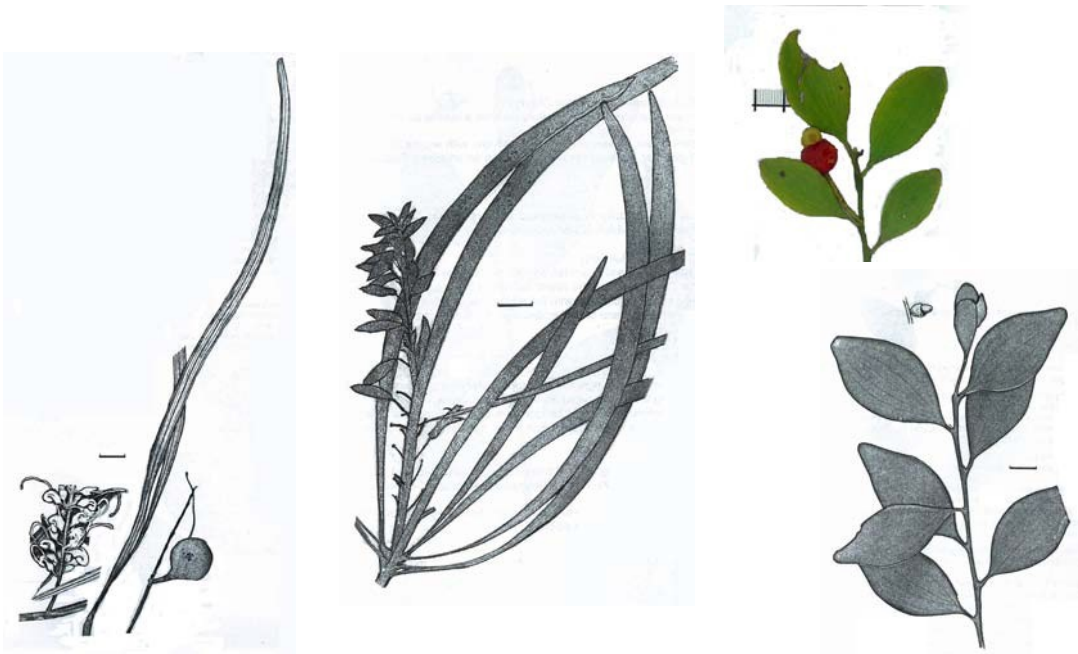
Persoonia, after Christian Hendrik Persoon (1755-1857), a mycologist who lived in France.

This small tree has long, curved falcate leaves. The **yellow** flowers are borne in racemes to 6 cm long; indehiscent fruit, greenish-yellow when ripe to 2 cm long. Aborigines had many uses for this plant.

Exocarpos latifolius (Broad-leafed Native Cherry, Mistletoe Tree – Santalaceae)

Exocarpos, from the Greek ***exo*** – outside, and ***karpos*** – fruit, the latter is outside because it is borne on a large, fleshy stalk.

This semi-parasitic shrub has striate branchlets, leaves are thick, to 8 x 5 cm, with widely spaced longitudinal veins. Flowers inconspicuous on a spike to 5 cm long; vary in colour from **green through to purple**. Fruit globular, yellowish-orange, borne on an enlarged, fleshy red pedicel.



G. parallela *P. falcata* *E. latifolius*

GROUP 8.J Fruits white at maturity or embedded in more or less translucent flesh, which is not coloured.

Pipturus argenteus (Native Mulberry, White Nettle – Urticaceae)

Pipturus, from the Greek ***pipto*** – to fall, and ***oura*** – tail, possibly refers to the long petiole.

Tall shrub, black dots may be present on the upper surface of the green leaves, on the lower surface the dark veins contrast with the whitish hairs between the veins; margins serrate. Flowers inconspicuous on long spikes, separate male and female flowers, **green to cream**. Fruits small and brown embedded in a fleshy semi-translucent/white mass with a diameter of about 6 mm. Edible.

Scaevola taccada (Fan Flower, Sea Lettuce Tree – Goodeniaceae)

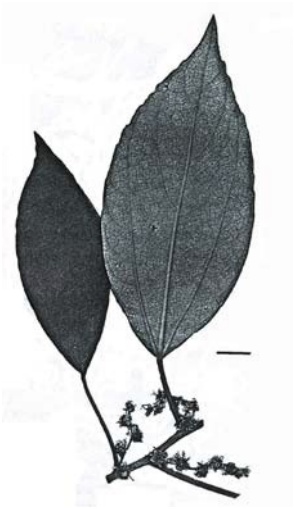
Scaevola, from the Latin ***scaevola*** – little hand, alluding to the one-sided fan-shaped corolla. Mucius Scaevola in 507 BC, burned off his right hand in a foiled assassination attempt!!

A bushy shrub, growing along the sandy beachfront. Leaves obovate, to 23 cm long and 11 cm wide, crowded towards the ends of the branches. Flowers **white**, corolla-tube split along one side so that the petals open out to form a fan. Mature fruit white, succulent from 7-18 mm diameter, usually about 10 cm.

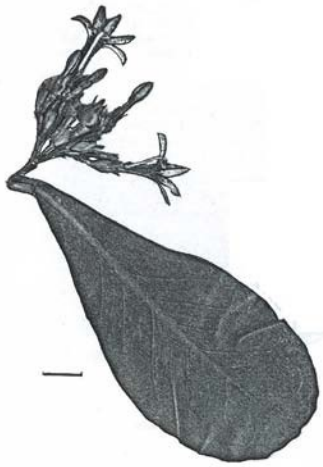
Flueggea virosa subsp. ***melanthesoides*** (White Currant, Snowball Bush – Phyllanthaceae formerly part of Euphorbiaceae)

Flueggea, named after Johann Flugge (1775-1816), a German botanist who developed a botanical garden in Hamburg.

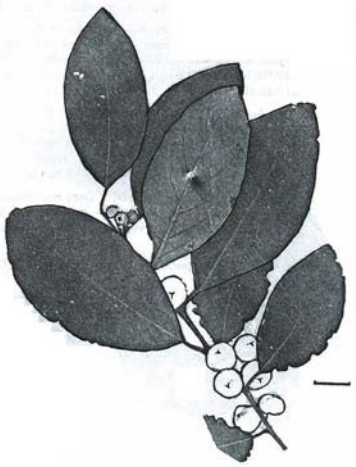
Straggling shrub to 3 m tall, deciduous, typically found in vine thickets. Leaves are up to 10 cm long, veins are prominent on the lower surface. Flowers small in clusters along the branch. Separate male and female plants. Mature fruit are fleshy, white berries 5-8 mm diameter. Edible.



P. argenteus



S. taccada



F. virosa

GROUP 8.K Leaves palmately or 3-nerved at the base and/or margins crenate/serrate. CAUTION

Aphananthe philippinensis (Grey Handlewood, Native Elm, Rough-leaved Hickory – Ulmaceae)

Aphananthe, from the Greek ***aphanes*** – inconspicuous, and ***anthos*** – flower.

Tree, leaves arranged in two rows, harsh when touch, margins serrate. Flowers inconspicuous, separate male and female. ruit a drupe about 1 cm long, black when ripe, style persistent and forked; 1 seed.

Celtis paniculata (Silky Celtis – Ulmaceae)

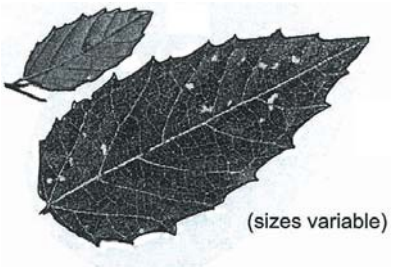
Celtis, a Latin name for an African tree.

Small tree with leaves 3-veined at the base to 9 cm long, lateral veins sometimes close to the margin, base may be slightly oblique. Flowers **greenish**, inconspicuous. Fruit globular to 9 mm diameter, black and succulent.

Trema tomentosa (Poison Peach – Ulmaceae)

Trema, from the Greek ***trema*** – a hole or aperture, referring to the pitted seed.

Shrub, leaves soft, usually pubescent, with 3 veins usually extending for at least half the length of the leaf, if not more, margins serrate. Flowers **greenish to yellowish**, small. Fruit small, ovoid and black at maturity. Leaves much eaten by insects, poisonous to stock.



A. philippinensis

C. paniculata

T. tomentosa

Dendrocnide moroides (Gympie Gympie, Stinging Tree – Urticaceae)

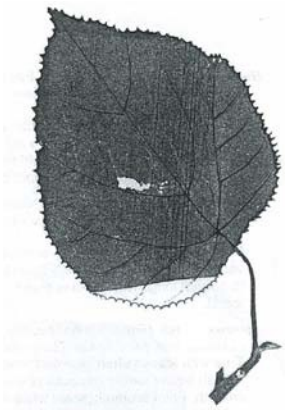
Dendrocnide, from the Greek ***dendron*** – tree, and ***cnid*** – a nettle.

Shrub; leaves broad, peltate, i.e., petiole is not right on the edge of the leaf, margin serrated, numerous irritant hairs present. Flowers **pale green**, inconspicuous. Fruits small and embedded in a fleshy mauve semi-translucent body. Edible but DO NOT TOUCH.

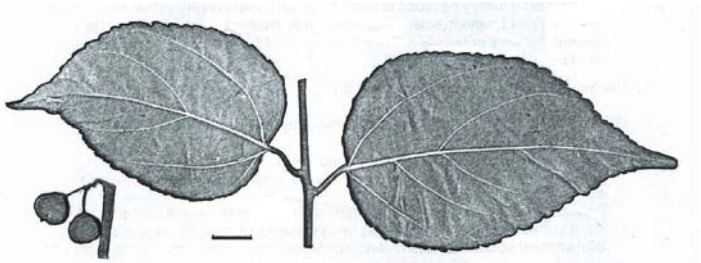
Colubrina asiatica (Beach Berry Bush, Latherleaf – Rhamnaceae)

Colubrina, from the Latin ***colubrinus,*** for snake-like, apparently referring to the nature of some of the branches.

A shrub often growing in sand near beaches, stems flexible often somewhat weeping; leaves shiny, margins crenate-serrate, leaves foam in water if crushed. Flowers small, **yellowish**; fruit a greenish berry, which hangs in clusters from the leaf axils.



D. moroides



C. asiatica

Zizyphus mauritiana (Chinee Apple* - Rhamnaceae)

Zizyphus from the name used by Pliny based on an Arabic name for a species in this genus.

This weed was introduced in the Gold Rush days. Distinguished by the 3-veined leaf which is whitish on lower surface, the hooked spines in the axils, the cream flowers with lots of nectar, and the orange fruit which is edible. Offers protection to small birds.

Cordia dichotoma (Cordia, Glue Berry Tree, Snotty-gobble – Boraginaceae)

Cordia, after Euricius Cordus (1486-1535) and his son, German botanists and pharmacists.

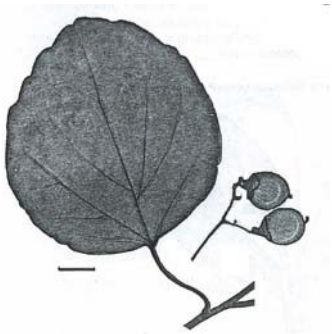
This shrub, which is deciduous prior to commencing flowering has ovate leaves on long petioles; margins are irregularly serrate. Flowers **white** small. Fruit is succulent 10-15 mm long, pale apricot colour at maturity, edible but pulp is very sticky. Flowers late spring and summer.

Homalanthus populifolius (Native Bleeding Heart, Native Poplar – Euphorbiaceae)

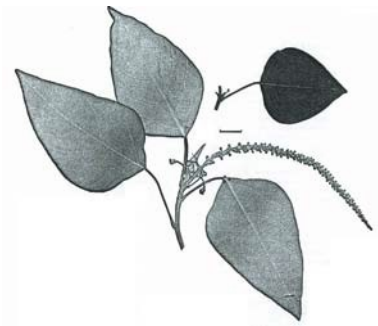
Homalanthus, from the Greek ***homalos*** – smooth, and ***anthos*** – flower, as the flowers are smooth.

Shrub or small tree; leaves ovate-triangular, with long petioles; a large nectary or gland is present at the junction of petiole and blade and two more occur on the lower surface nearby. Usually some old red leaves are present. Flowers **green**, inconspicuous arranged in spikes, separate male and female. Fruit a 2-lobed capsule, 8-10 mm diameter, greyish-green is the most common colour. Fruits eaten by birds. Plant also known by the former name *Omalanthus*.

Z. mauritiana



C. dichotoma



H. populifolius

Scolopia braunii (Scolopia, Brown Birch – Salicaceae/Flacourtiaceae)

Scolopia, from ***skolops*** – a paling with a sharp point, since some species have thorns. This shrub to small tree has leaves with entire or undulating margins often with some irregular lobes, 3-5-12 cm long, usually 3-veined at base. Flowers are **greenish-cream** in racemes, petals to 3 mm long; fruit a dark red to black berry about 1 cm diameter.

Cryptocarya triplinervis (Native Laurel, Brown Laurel – Lauraceae)

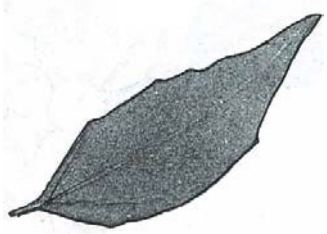
Cryptocarya, from the Greek ***kryptos*** – concealed, and ***karyon*** – nut, the seed is hidden in the perianth tube.

Leaves elliptical to ovate, 3-veined at base, have an aromatic smell when crushed, very fine oil glands present. Flowers small **green to cream**, in panicles; fruit fleshy, black, ellipsoidal to 13 mm long. This species plus ***Cryptocarya hypospodia*** and ***Cryptocarya vulgaris*** all occur in closed forest, but these are not 3-veined at base.

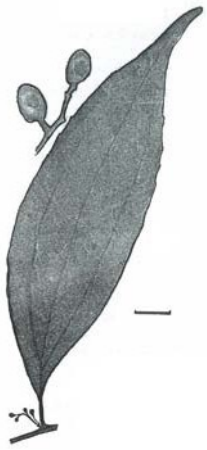
Neolitsea brassii (Bollywood – Lauraceae)

Neolitsea, from ***neo*** – new and ***Litsea*** a Chinese name for the first species described.

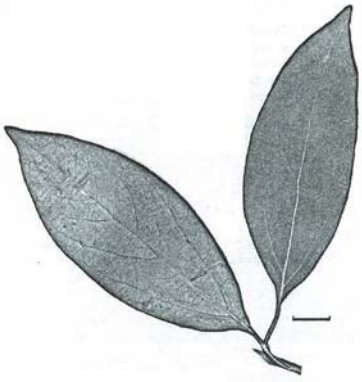
Tree with leaves often crowded towards the ends of branches, glossy above, whitish below mainly because of wax (glaucous), veins drying yellowish, margins smooth. Faint aromatic smell when leaves are crushed, very fine oil glands present. Flowers in sessile, axillary clusters, **pale**-coloured; fruit fleshy, red, drying blackish to 12 mm long.



S. braunii



C. triplinervis



N. brassii

NOTE: Several ***Grewia*** species will key to here, refer to **Group 7.C** for comments.

See also ***Pipturus argenteus***, **Group 8.J**.

GROUP 8.L Leaves densely pubescent on lower surface.

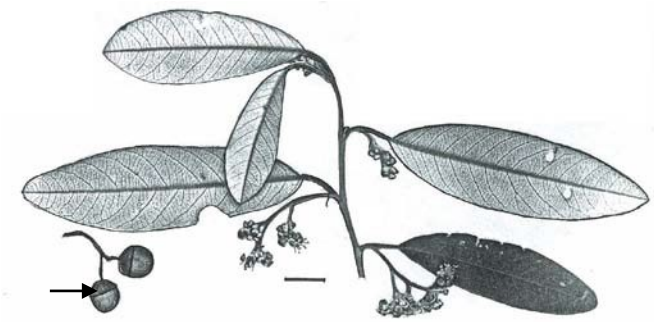
Alphitonia excelsa (Red Ash, Soap Tree – Rhamnaceae)

Alphitonia, from the Greek ***alphiton*** – baked barley, referring to the reddish, mealy material around the seed.

Tree, usually in woodland or on margins of wetter areas, leaves whitish on the lower surface with prominent veins; freshly broken or scraped twigs produce a faint liniment odour. Flowers **cream,** heavily scented; fruit black, drupe more or less globular to 1 cm long, with a ring like calyx scar (↑). Birds attracted to the fruits. Saponins present used as a fish poison.

Sersalisia sericea (Wild Prune, Mongo, formerly ***Pouteria sericea*** – Sapotaceae) See also **Group 4A**. ***Seralisia***, named after a Neopolitan priest, J.B. Sersalis, who was also a zoologist.

A small, bushy tree, latex present but usually very sparse; leaves firm with densely matted golden-brown to silvery hairs on the lower surface. Flowers **greenish-white**, borne in clusters along the stem. Fruit succulent, dark purple to 2 cm long, edible when ripe. Often found on rocky headlands. A tree with similar young leaves, found in closed forest is ***Niemeyera antiloga*** (Brown Pearwood), but it has copious latex.



A. excelsa

P. sericea

NOTE: Refer to **Group 8.F** for comments re ***Solanum sporadotrichum.***

GROUP 8.M Leaves obovate, flowers in spikes; fruit may be flattened (*Terminalia* spp.).

Terminalia spp. (Damson Trees – Combretaceae)

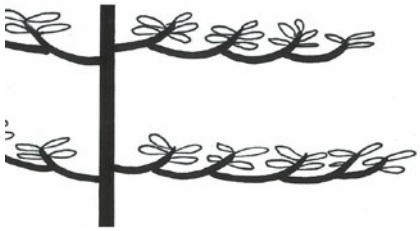
Terminalia, from the Latin ***terminus,*** referring to the leaves that are often terminally clustered, or bunched on the branchlets.

A number of species have been recorded on the Island. These are readily identified by a combination of features; the characteristic branching, which initially is at a broad angle to the main stem; the obovate leaves, i.e. they are wider above the middle; often some old red-coloured leaves present; fruit is usually somewhat flattened and laterally compressed and the flowers are arranged in spikes. The latter are **white** and heavily scented, male flowers borne near the top of the spike and bisexual flowers closer to the stem. All species tend to be deciduous. Seed is nutritious and valued by many birds and rodents (and humans). All species have a typical branching pattern, best seen in some of the more open branching trees like the sea almond, if the new buds have been affected by very dry

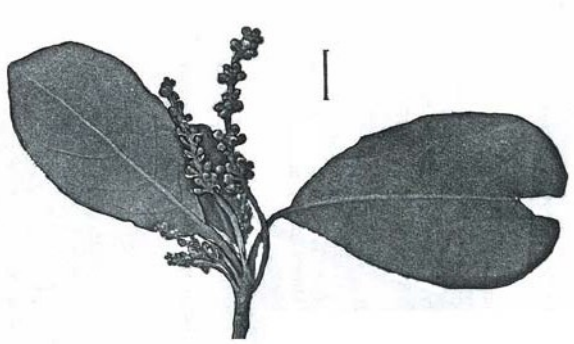
conditions or serious insect attack then the pattern is often not obvious immediately.

Terminalia melanocarpa (Black Damson – Combretaceae)

Tree, leaves glabrous to 12 x 7.5 cm, domatia are rare or absent. Flowers **white**, 6 mm wide on spikes 4-12 cm long. Mature fruits are green, lack a beak, and are about 2-3 cm long and 1.5-2 cm wide. The immature fruit has a continuous wing around it. Typically found associated rocks close to the sea.



Typical *Terminalia* branching pattern



T. melanocarpa

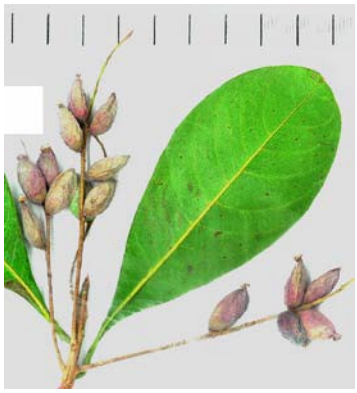
Terminalia muelleri (Mueller's Damson – Combretaceae)

Tree, similar to the preceding species but leaves are larger up to 15 x 8 cm and domatia are present and conspicuous on the lower surface, look for hair tufts in the axil formed by the midrib and some lateral veins. There are two glands present near junction of petiole and leaf base on the lower surface. Flowers **white**, 6 mm wide borne on spikes to 15 cm long. Fruit, purple to lack at maturity, shortly beaked to 2 x 1.5 cm., wing absent on immature fruit. Usually growing in sandy areas, close to the beach.

Terminalia microcarpa (Damson Plum, Native Plum, sometimes as ***Terminalia sericocarpa*** – Combretaceae)

This species has a shiny upper leaf surface, small domatia present, lack tufts in the cavities but there may be a few hairs on the margins of the slit. Flowers **white**, 5 mm diameter on spikes to 10 cm long. Fruit to 1.8 x 1 cm, obscurely winged, fine, small silky hairs present on lower surface.

T. muelleri



T. microcarpa

Terminalia catappa (Indian Almond, Sea Almond – Combretaceae)

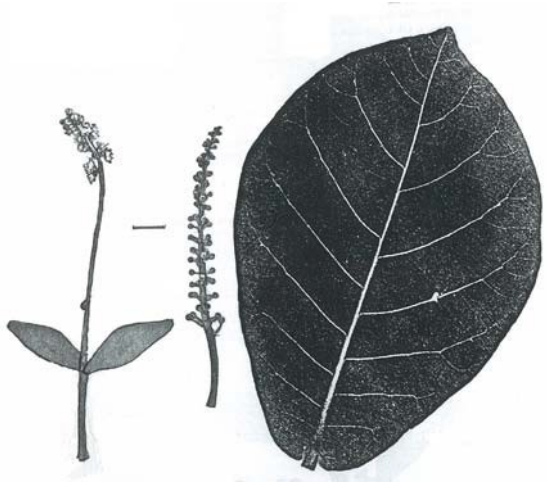
A tree with large leaves to 36 cm long and about 17 cm wide, domatia present present on the lower surface, visible as hair tufts in the axils of the midvein and lateral veins, common. Flowers **white**, 6 mm wide on spikes shorter than the leaves. Fruit at maturity is dark purple, and somewhat compressed to 8 cm long and 5 cm wide. Immature fruit have distinct wings. This tree, which is cyclone and salt spray resistant is often planted along foreshores. The kernel of the fruit is edible and highly nutritious.

Terminalia arenicola (Not illustrated but see sketch of fruit "A": Brown Damson – Combretaceae)

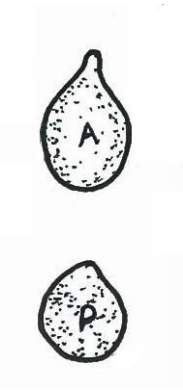
This tree grows in similar habitats to the previous two species. Flowers **white**, 6-7 mm wide, on spikes 10-20 cm long. Mature fruit are dark red to black, slightly beaked and somewhat compressed, 2.5-4 cm long 1.7-2.5 cm wide, with a distinct ridge on immature fruits. Leaves are similar but smaller 10-20 cm long, 6-14.5 cm wide, domatia usually present. This is a more attractive tree for gardens than ***Terminalia catappa***.

Terminalia porphyrocarpa (Not illustrated but see sketch of fruit "P"– Combretaceae)

Tree often growing on rock or dry rainforest communities as at West Point and other areas on the Island. Leaves are from 4-10 cm long and 2-5 cm wide, rarely more; domatia are absent. Flowers **white** about 5 mm wide on spikes to 10 cm long. Fruit are 1-2 cm long and up to 1.5 cm diameter, globular to ovoid, not beaked. Immature fruits have a prominent wing which is absent at maturity.



T. catappa



T. arenicola (A), *T. porphyrocarpa* (P)

GROUP 8.N Flowers usually more than 1 cm diameter, AND mature leaves rarely <7 cm long.

Melodorum leichhardtii (Zig-Zag Vine, Wild Banana – Annonaceae)

Melodorum, from the Latin ***mel*** – honey, and ***odor*** – smell, because of the heavily scented leaves.

Shrub or scrambling vine with zig-zag branchlets, stellate or star-shaped hairs present. Flowers **dull yellow**, fleshy about 2.5 cm diameter, scent unpleasant. Fruits clustered, yellow, usually irregularly constricted between the seeds.

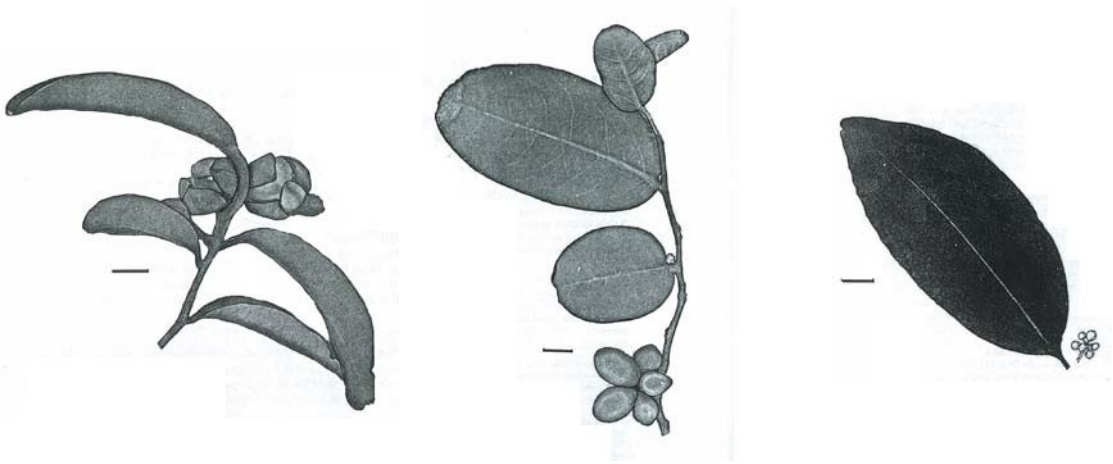
Meiogyne (Fitzalania) heteropetala (Orange Annona – Annonaceae)

An Asian genus now incorporating ***Fitzalania,*** named after Eugene Fitzalan (1830-1911) who collected in the Burdekin area.

Tall shrub, branchlets often form a zig-zag; leaves to 13 x 5.5 cm, hairs may be

associated with the veins on the lower surface. Flowers solitary, **dark purple** to 3.2 cm long; fruit dry but indehiscent, orange but covered with rusty hairs, a cluster of 1-12 individual fruits produced per flower.

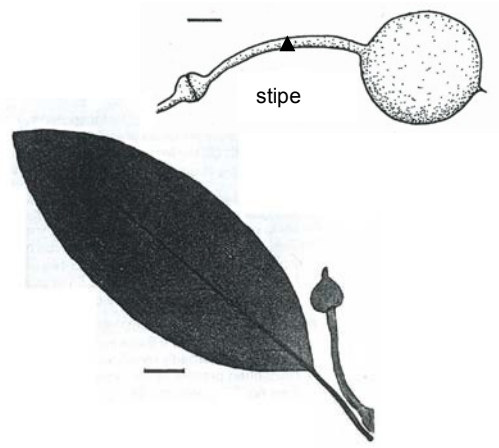
Huberantha (Polyalthia) nitidissima (Canary Beech, Shiny Leaf Tree – Annonaceae)
Huberantha means Huber's flowers, a Professor**.** ***Polyalthia,*** from Greek ***polys*** – many, and ***altheas*** – healing, the bark is said to cure many ailments.
Small tree with shiny leaves 6-12 cm long, 2.5-5 cm wide, hair tufts sometimes present in axils on lower surface. Flowers **yellow-green**, 6 petals 15-22 mm long; fruit a berry, bright red at maturity about 1 cm long, arranged in umbels, single seed.



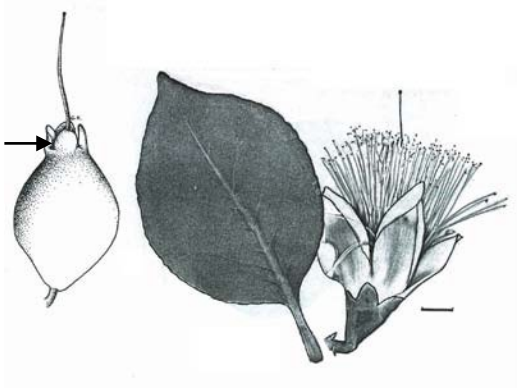
M. leichhardtii *M. heteropetala* *H. nitidissima*

Capparis arborea (Native Pomegranate, Caper – Capparaceae)
Capparis, from ***kapparis***, a name used by Dioscorides, an Arabic name is ***kapar***.
A shrub with firm leaves and spines, which are common on young plants. Flowers solitary, outer sepals fused in bud, petals **white to cream** 4-5 to 3 cm long, stamens numerous, prominent. Globose fruit borne on a long stalk or stipe (↑), green, sometimes black, to 3 cm diameter, edible. ***Capparis sepiaria*** (Wild Orange) has the outer sepals free in bud, petals 1.5-6 cm long, stamens more than 50. ***Capparis spinosa*** subsp. ***nummularia*** (Caper Bush, Flinders Rose) is distinguished from ***C. sepiaria*** by petals less than 1 cm long, and stamens less than 50. The buds of ***Capparis spinosa*** are the capers of commerce and the fruits are the caperberries.

Planchonia careya (Cocky Apple – Lecythidaceae)
Planchonia, named after Jules Emile Planchon (1823-1888) a French botanist.
Small trees; the large leaves have flattened petioles. Petals **white**, the filaments of the numerous pink and white stamens are fused to form a short tube. Fruit large, to 9 cm long, green, style and calyx lobes persistent (↑). Edible. Flowers open late in the evening and stamens and petals fall off early in the morning and carpet the ground.



C. arborea



P. careya

Mangifera indica (Mango – Anacardiaceae)*

Mangifera**,** from ***mangas*** – fruit in Hindi and the Latin ***ferre*** – to bear.

Trees with dense foliage, mangoes have simple alternate leaves with a copious clear sap, which may cause blisters in susceptible people. Flowers **green to cream**. The fruit is a large fleshy drupe, colours vary with cultivar. Feral and cultivated specimens are common.

GROUP 8.O Flowers small to insignificant, mature leaves usually <6 cm long.

Diospyros geminata (Queensland Ebony, Native Ebony – Ebenaceae)

Diospyros, from the Greek ***dios*** – of Zeus/divine, and ***pyros*** – grain, fruit of the gods!

Shrub with glossy leaves, separate male and female plants. Flowers small, **white to creamy green**; fruit a fleshy berry, yellow often with a reddish blush, it is seated on the persistent calyx (↑) which looks rather like a cupule. Ripe fruits are edible.

Pittosporum spinescens (Wallaby Apple, Orange Thorn, formerly ***Citriobatus*** – Pittosporaceae)

Pittosporum, from the Greek ***pitta*** – pitch, and ***spora*** – seed, in reference to the sticky coating around the seeds.

Shrub with small leaves and numerous short spiny branchlets. Flowers to 8 mm long with 5 **white** petals; fruit changes from green to orange eventually becoming blackish, globular to 2.5 cm diameter.

M. indica

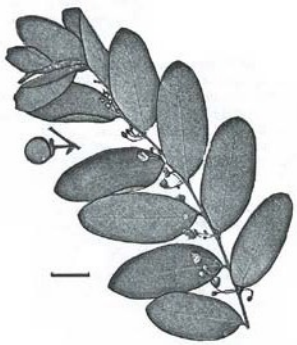
D. geminata

P. spinescens

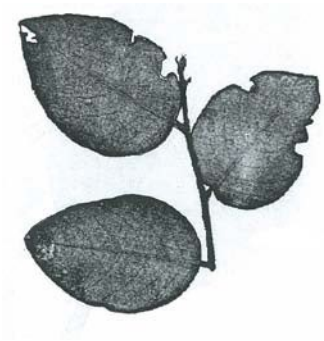
Breynia oblongifolia (Coffee Bush – Phyllanthaceae formerly part of Euphorbiaceae)
Breynia, named after J.P. Breyn a 17th Century German botanist and physician.
A glabrous shrub, leaves more or less in the one plane, whitish (glaucous) on the lower surface, apex rounded. Flowers small, **greenish** arising in the leaf axils, male and female flowers are separate; staminal filaments united into a column. Fruit berry-like, red, turning black on drying.

Bridelia leichhardtii (Small-leaved Brush Ironbark – Phyllanthaceae formerly part of Euphorbiaceae)
Bridelia, named after a Swiss expert on mosses, S. de Bridel (1761-1828).
A shrub with broadly ovate leaves to about 10 cm long, veins prominent, some hairs often present on the lower surface. Flowers small **greenish**. Fruit to 7 x 6 mm, green to reddish and then black at maturity, fleshy.

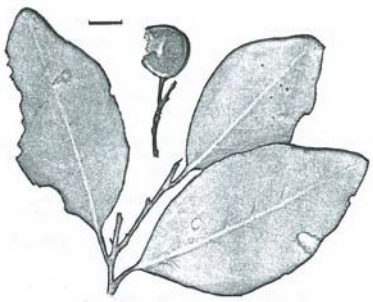
Drypetes deplanchei (Yellow Tulipwood – Putranjivaceae formerly part of Euphorbiaceae)
Drypetes, from the Greek ***dryppa*** – an olive like fruit.
A very variable species, frequently growing in dry rainforest or vine thicket areas. The leathery leaves usually have an irregular margin at maturity, juvenile specimens have toothed margins. Flowers **yellowish-green** with 4-5 sepals. Fruit a 2-locular, reddish-orange drupe 1-2 cm long.



B. oblongifolia



B. leichhardtii x 1/4



D. deplanchei

Antidesma ghaesembilla (Black Currant Tree – Phyllanthaceae formerly part of Euphorbiaceae)

Antidesma, from the Greek ***anti*** – for, and ***desmos*** – band, referring the bark of ***A. bunius*** being used for making rope or as a fastening.

This shrub has broadly elliptical leaves more than 2.5 cm long, separate male and female plants. Flowers **white to cream** borne on a spike. Ripe fruits range from pink to black, about 6 mm long, edible.

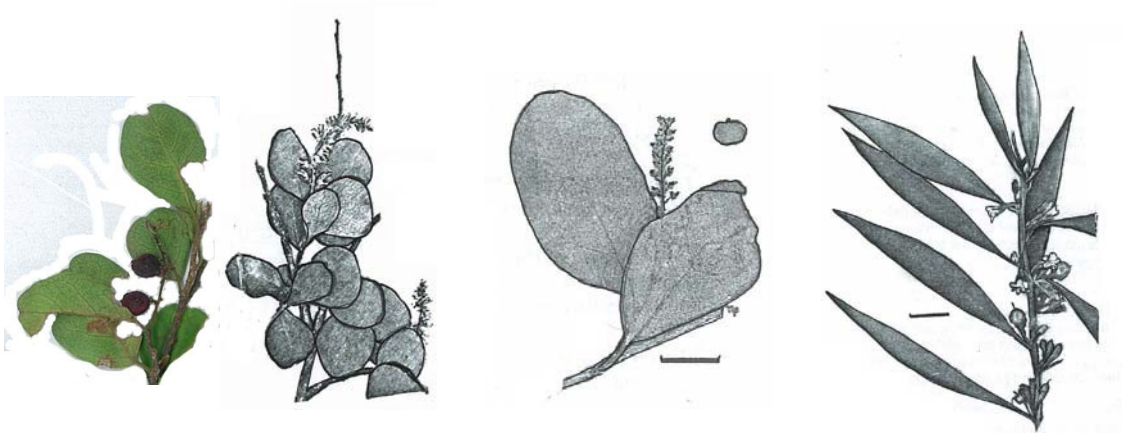
Antidesma parvifolium (Currant Bush – Phyllanthaceae formerly part of Euphorbiaceae)

Leaves obovate less than 2.5 cm long, young leaves usually have some domatia present; flowers are **pale yellow** and the fruit is red to black to 6 mm long.

Myoporum acuminatum (Boobialla, Water Bush – Scrophulariaceae/ Myoporaceae)

Myoporum, from the Greek ***myo*** – to close, and ***porum*** – a pore, referring to the densely glandular-punctate leaves.

This shrub has small, slightly irregular flowers, petals 5 with obvious large oil dots, **white**, stamens 4. Leaf size varies from 3 to 10 cm long and up to 2 cm wide. Fruit is fleshy, pink to dark purple.



A. ghaesembilla *A. parvifolium* *M. acuminatum*

GROUP 8.P **Leaves palmately-veined, i.e. coming from one point, or 3-veined at the base. Fruit dry and dehiscent (Euphorbiaceae, Malvaceae).**

Mallotus nesophilus (Yellow Ball Flower – Euphorbiaceae)

Mallotus, from the Greek ***mallotos,*** lined with wool, referring to the hairs on some of the leaves and fruits.

This species is distinguished by the small yellow glands or 'granules' on the leaves, some stellate or star-shaped hairs may be present. A good hand lens is needed to see the glands. Two flat glands on upper surface near base of leaf blade and junction with the petiole. Flowers **white to yellowish-green**, separate male and female flowers. Fruit a capsule to 7 mm diameter, yellow.

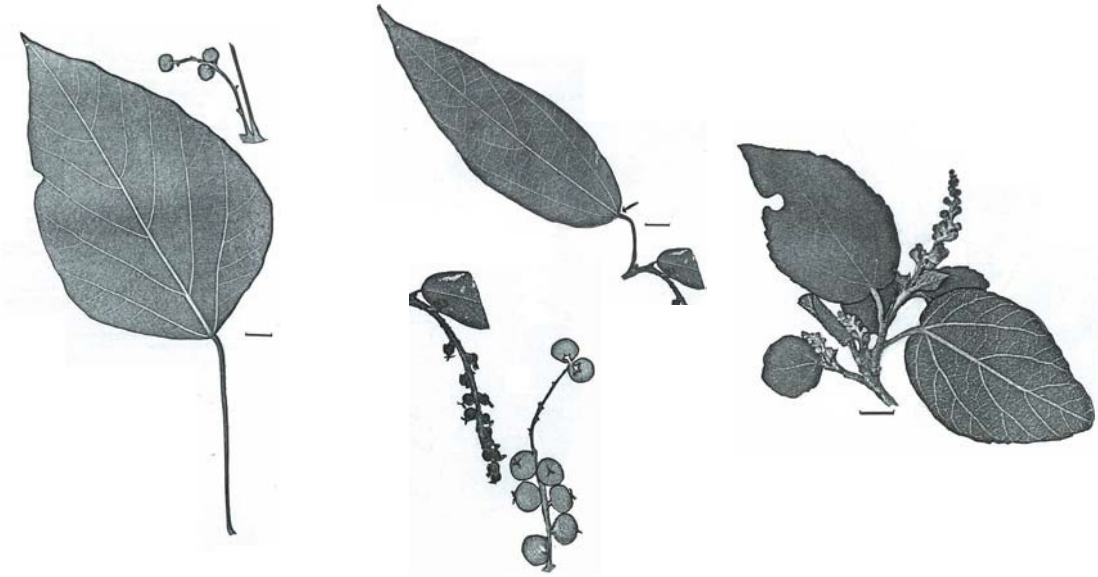
Mallotus philippensis (Red Kamala, Kamala – Euphorbiaceae)

A shrub or small tree with leaves to 20 cm long; branchlets and lower surface of the leaves covered with rusty stellate hairs. Small glands usually present (↑) near the junction of the petiole and blade. Lower surface of the 3-veined leaves and the 3-lobed capsules also bear red glandular granules. Flowers in small clusters along the spike, **yellowish-brown**, separate male and female.

Croton arnhemicus (Croton, Hard Cascarilla – Euphorbiaceae)

Croton, from the Greek word ***croton*** – a tick, the seeds are supposed to resemble a sheep-tick!

Like most of the crotons this shrub has silvery, stellate or star-shaped hairs present on the lower surface of the leaf. Flowers **greenish** on separate racemes to 7.5 cm long. The 3-locular capsule to 8 mm diameter is densely covered by reddish stellate hairs.



M. nesophilus *M. philippensis* *C. arnhemicus*

Croton magneticus (Not illustrated – Euphorbiaceae)

This plant is rare, it was initially found only on Magnetic Island hence the name. It has lanceolate to elliptical leaves, and occurs along some of the rocky foreshores. The commercial 'croton' grown in gardens for its attractive coloured foliage is actually a member of the genus ***Codiaeum***.

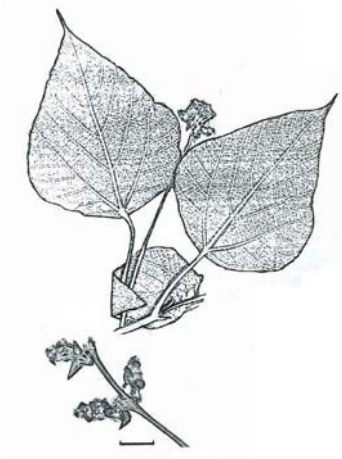
Macaranga involucrata (Brown Macaranga, Macaranga – Euphorbiaceae)

Macaranga, a Madagascan name for the first one to be described.

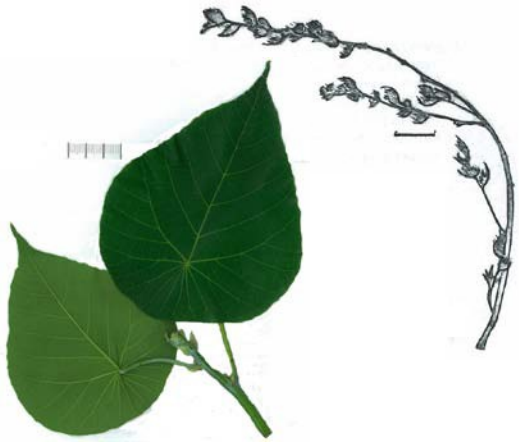
Tall shrub, leaves broadly ovate to rhomboid up to 14 cm long, small yellow dots or glands present on the lower surface; 2-4 flat glands present on the upper surface near junction with petiole. Separate male and female flowers, creamy green, male borne in spikes and females in panicles. Capsule to 2 mm diameter, usually brownish at maturity, splitting into 3.

Macaranga tanarius (Blush Macaranga, Macaranga – Euphorbiaceae)

Shrub or small tree with peltate leaves, up to 30 cm diameter, veins radiate out from the centre; numerous small scales present on lower surface. Inflorescence formed of a cluster of flowers arranged in a panicle, each cluster subtended by an attractive yellowish fringed bract, flowers **yellowish,** flowers unisexual. Capsule yellow splitting into 3, outside bears numerous rubbery protuberances like soft blunt prickles or spines.



M. involucrata x 1/3



M. tanarius

Abutilon auritum (Chinese Lantern – Malvaceae)

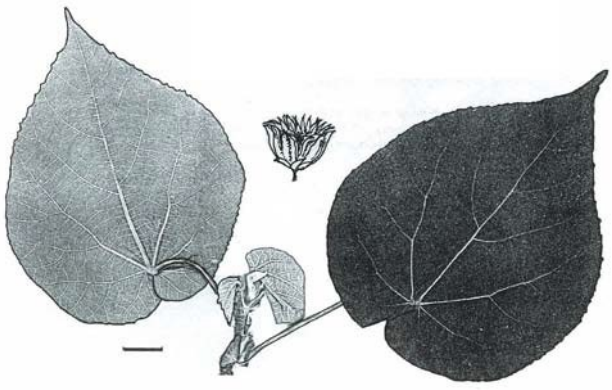
Abutilon, an Arabic name used by Avicennia for a species of mallow.

A large shrub, leaves broad to 17 x 15 cm, base deeply cordate, lower surface densely pubescent i.e., with numerous soft hairs resulting in a velvety feel; margins irregularly toothed, stipules 1-2 cm long. The **yellow** hibiscus-type flowers often have a yellowish tinge. The fruit is a blackish hairy capsule with reflexed points, it breaks up into 10 segments.

NOTE: A similar species but with narrow stipules and more than 12 segments in the fruits has been collected on Bay Rock, ***Abutilon indicum*** var. ***australiense*** also known as ***Abutilon guineense***.

Abutilon oxycarpum (Lantern Bush – Malvaceae)

Shrub, leaves usually narrowly ovate, to 7.5 x 4 cm, pubescent, stipules narrow, flowers **yellow**. Fruit a capsule, 7-8 mm diameter, 7-8 mm high, composed of 8-12 mericarps which have spreading tips.



A. auritum

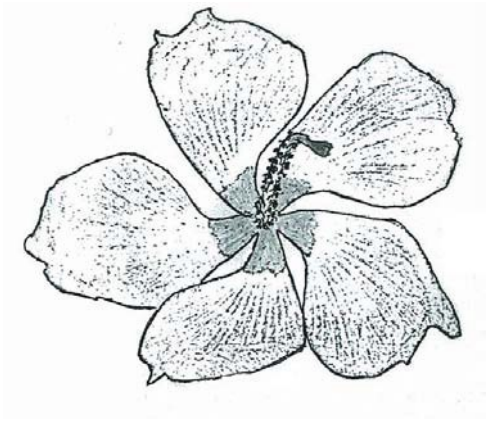
A. oxycarpum

Hibiscus tiliaceus (Coast Cottonwood, Beach Hibiscus – Malvaceae)

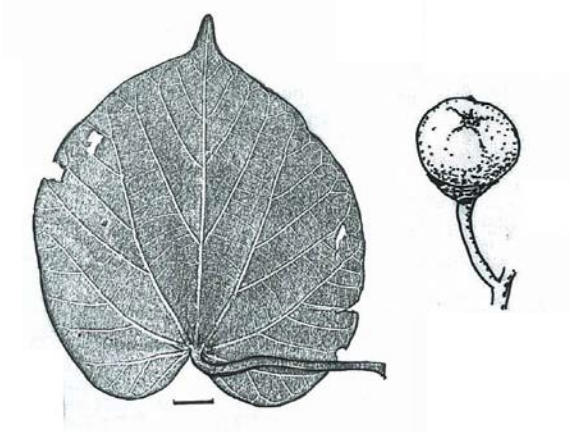
Tree associated with seashores and saline estuaries. The large heart-shaped leaves have a fine covering of star-shaped (stellate) hairs on the lower surface, resulting in a greyish appearance to the leaves. A number of small glands are

always present near the point of insertion of the petiole. Flowers **yellow** with a maroon centre, petals to 7 cm long; fruit a 5-valved capsule to 2.5 cm long. Young shoots and flowers may be eaten; twigs will burn even when damp.

Thespesia populnea (Pacific Rosewood, Portia Tree, Indian Tulip Tree – Malvaceae)
Thespesia, from the Greek ***thespesios*** – divine.
This tree, which is similar to ***Hibiscus tiliaceus,*** and occupies a similar habitat. It may be distinguished by: the depressed globular capsule which opens irregularly; the presence of scales rather than stellate hairs on the leaves; glands at junction with petiole are rare, and the **yellow** flowers have maroon spots at the base rather than a continuous band. This species may be distinguished from ***Thespesia populneoides*** by the deeply cordate leaf base v. shallowly cordate to truncate, the pedicels are 1-5 cm v. 5-12 cm long and the indehiscent v. dehiscent fruit.



H. tiliaceus x ½

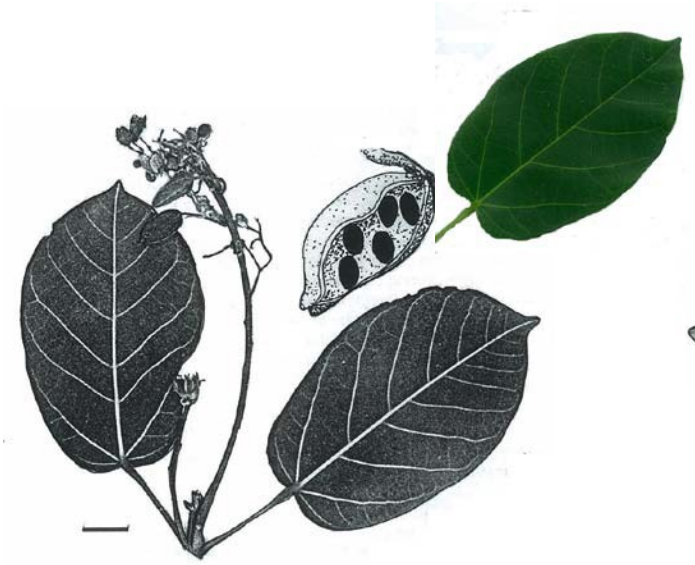


T. populnea, fruit x ½

Sterculia quadrifida (Red-fruited Kurrajong, Peanut Tree – Malvaceae/Sterculiaceae)
Sterculia, from the Latin ***stercus*** – dung, hence ***Sterculius***, who was the Roman god of dung-heaps and out houses, referring to the smell of the flowers.
A tree associated with beach scrubs, it is deciduous when flowering. The small **greenish** flowers are followed by a cluster of 3-4 bright red follicles to 7 cm long. These contain oval, black velvety coated seeds attached to the open edge. Seeds are edible once the outer coat is peeled off.

GROUP 8.Q Leaves arranged in the one plane, distichous thus often appearing as a compound leaf, but there is a bud present in the axil of each leaf (Euphorbiaceae).

Glochidion lobocarpum (Cheese Tree, Buttonwood – Phyllanthaceae formerly part of Euphorbiaceae)
Glochidion, from the Latin ***glochidium*** – referring to the barbs on the stigmas of some species. Also based on the Greek ***glochin*** meaning any projecting part.
Shrub or small tree, leaves often oblique at the base, 2-10 cm long, glaucous, i.e., greyish usually due to wax on lower surface. Flowers are born on pedicels or stalks, not sessile as in many of the other species, **yellowish-green**. Depressed capsules are deeply divided into 6 or fewer lobes to 8 mm diameter.



S. quadrifida

G. lobocarpum

Glochidion apodogynum (Not illustrated – Phyllanthaceae formerly part of Euphorbiaceae)
Shrub, leaves broadly rounded at the base, pubescent on both sides; flowers sessile, **greenish**; capsule densely hairy/pubescent, not deeply lobed, resembles a small pumpkin. Uncommon.

Phyllanthus novae-hollandiae (Phyllanthus – Phyllanthaceae formerly part of Euphorbiaceae)
A spreading shrub, leaves 1-2 cm long, distichously arranged so that at first glance they resemble compound or pinnate leaves. Flowers unisexual, **greenish**; capsules to 5 mm long.

NOTE: see also ***Breynia*** (**Group 8.O**)

GROUP 8.R Plant deciduous when flowering commences.

Turraea pubescens (Turraea, Native Witch-hazel – Meliaceae)
Turraea, named after Giorgio della Turra (1607-1688), Professor of Botany at Padua.
Tall shrub; leaves more or less pubescent on lower surface, domatia as hair tufts often present in the axils between the midrib and lower lateral veins. Plants deciduous, flowers occur as the new leaves are appearing. Flowers strongly scented, with 5 **white** petals 2-4 cm long with 5 free petals; fruit a woody capsule splitting into 5-7 valves at maturity, these valves are orange on the inside when they first open.

P. novae-hollandiae

T. pubescens

GROUP 8.S Plants not deciduous at time of flowering.

Bursaria incana, Bursaria spinosa and ***Bursaria tenuifolia*** (Pittosporaceae)

Bursaria, from the Latin ***bursa*** – pouch, because the shape of the fruit resembles the fruit of the plant known as 'Shepherd's Purse'.

The common names applied generally to these three species are Sweet Bursaria, Box Thorn, Prickly Pine, Mock Orange. The first two species are usually rigid shrubs, much branched, but the latter may form a tree and it will be found in the wetter areas along creeks or margins of closed forest. All have **white** flowers in terminal panicles, petals and stamens 5 respectively. The fruit is a flattened 2-valved brownish capsule (↑).

Bursaria incana appears very similar when young but the leaves are whitish on the lower surface and become much longer as the plant grows, to the extent that young plants and mature plants at first do not appear to be related.

Bursaria spinosa has small leaves, rarely up to 4.5 cm long, paler green on lower surfaces, the branchlets often end in spines.

Bursaria tenuifolia, has spines present only on young plants, leaves paler green on lower surface, up to 8 cm long.

B. incana

B. incana-inflorescence

B. tenuifolia

Pittosporum ferrugineum subsp. ***linifolium*** (Rusty Pittosporum – Pittosporaceae)

Shrub to small tree, leaves tend to be clustered towards the ends of branchlets, reddish hairs present on the lower surface. Flowers **white to cream**, petals

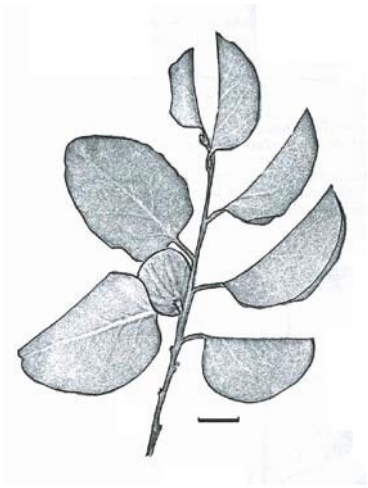
reflexed; fruit a smooth yellow, 2-valved capsule, seeds embedded in sticky material. Has been collected on the Nelly Bay to Arcadia track

Petalostigma pubescens (Quinine – Picrodendraceae formerly part of Euphorbiaceae)

Petalostigma, from the Greek ***petalon*** – petal, and ***stigma*** – stigma, referring to the petal-like branches of the stigma.

Shrub or small tree to 10 m tall, the leaves and the fruit are pubescent. Flowers greenish. The fruit is a 3-4-valved capsule, orange when mature, 1.5-2 cm diameter. Galls often present on the leaves. Although not collected on the Island, a similar plant on the nearby mainland is ***Petalostigma banksii***. This species has relatively smaller leaves which are glabrous or hairless, likewise the fruit is glabrous i.e., lacks hairs. The fruits of both species are explosively dehiscent, and seeds can be distributed over quite a distance from the parent tree. Bitter to eat.

P. ferrugineum



P. pubescens

Dodonaea lanceolata (Hop Bush – Sapindaceae)

Dodonaea, named after Rembert Dodoens (1516-1585), a Dutch physician and herbalist.

The leaves on this shrub are usually narrow to broadly elliptical to 8 cm long and 2(-3) cm wide. The flowers are small, separate male and female, in terminal or subterminal clusters of 6-10, inconspicuous. Fruit is a 3-winged brownish capsule 2cm x 2 cm. The leaves of ***Dodonaea viscosa***, (Sticky Hop Bush) are highly variable but are readily identified by being sticky or viscid to touch.

Alchornea ilicifolia (Native Holly – Euphorbiaceae)

Alchornea, S. Alchorne was a British collector in the 18th Century.

This shrub is readily identified by its holly-like leaves, it is usually found in vine thickets. Separate male and female plants, males borne in racemes or panicles, females are solitary, **greenish**. The 3-lobed, brown capsule 5-7 mm diameter, lacks hairs.

D. lanceolata

A. ilicifolia

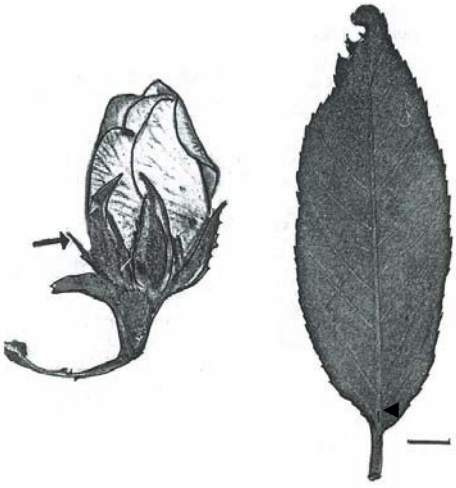
Hibiscus divaricatus (Malvaceae)

This shrub has prickly stems and the leaves may be entire or lobed, prickly along the midrib, margin serrate. Arrow (↑) on leaf indicates a narrow gland/extra-floral nectary. Along the calyx and epicalyx (↑) both coarse and simple stellate hairs (i.e., star-shaped or branched) are found. Flowers usually **white** with margins and base pink, rarely **yellow**.

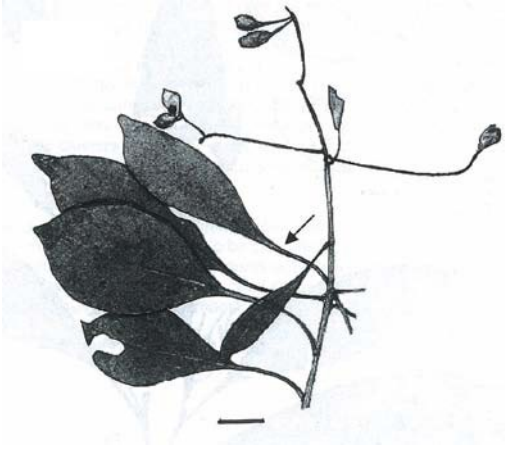
NOTE: ***Hibiscus meraukensis*** (**Group 8.F**) may key out here. However it does not have any stellate hairs on the calyx or epicalyx.

Denhamia (Maytenus) disperma (Celastraceae)

Denhamia after Capt. Denham, an African explorer**.** ***Maytenus,*** a vernacular name from Chile. Shrub or small tree, leaves tend to be broadest above the middle, base is attenuated (↑). Flowers small with 4 **white** petals, 4 stamens; capsule with 2 valves, the black seeds are surrounded by a yellow aril at the base.



H. divaricatus



D. disperma

VASCULAR PLANTS COLLECTED ON MAGNETIC ISLAND

Compiled from lists supplied by Queensland Herbarium (Herbrecs), ACTFR Report 00/05, 2000; Russell Cumming, October 2003; Con Lokkers and other personal collections.
Note: not all of these specimens are supported by vouchers, although I have tried to visually sight as many as possible, there will undoubtedly be some inaccuracies. **Names are according to Bostock P.D. and Holland A.E. (eds) (2007) Census of the Queensland Flora, some changed as a result of recent revisions. Family names unchanged.**
Introduced plants, often exotics, are indicated with an asterisk *, weeds with a #, Conservation status where applicable is indicated by V – vulnerable, R – rare.

FERNS	
Adiantaceae	Adiantum aethiopicum
	Adiantum atroviride
	Adiantum hispidulum
	Cheilanthes brownii
	Cheilanthes nudiuscula
	Cheilanthes sieberi
	Cheilanthes tenuifolia
	Doryopteris concolor
	Paraceterach muelleri
	Pellaea falcata
	Pityrogramma calomelanos
Blechnaceae	Blechnum cartilagineum
	Doodia caudata
Davalliaceae	Davallia denticulata
Dennstaedtiaceae	Dennstaedtia davallioides
	Pteridium esculentum x P. revolutum
Dicksoniaceae	Calochlaena dubia
Dryopteridaceae	Lastreopsis tenera
Gleicheniaceae	Dicranopteris linearis var. linearis
Lindsaeaceae	Lindsaea ensifolia subsp. ensifolia
	Marsilea sp.
	Nephrolepis hirsutula
Marsiliaceae	Drynaria rigidula
Nephrolepidaceae	Drynaria sparsisora
Polypodiaceae	Platycerium veitchii
Psilotaceae	Psilotum nudum
Pteridaceae	Acrostichum speciosum
Schizaeaceae	Lygodium reticulatum
Selaginellaceae	Selaginella ciliaris
Thelypteridaceae	Cyclosorus interruptus
OTHER VASCULAR PLANTS	
Acanthaceae	Barleria lupulina*
	Brunoniella acaulis
	Brunoniella australis
	Hypoestes floribunda
	Pseuderanthemum variable
	Rostellularia adscendens
	Thunbergia alata*#
	Thunbergia grandiflora*#
Agavaceae	Agave vivipara var. vivipara*
Aizoaceae	Sesuvium portulacastrum
	Trianthema portulacastrum
Amaranthaceae	Achyranthes aspera#
	Alternanthera denticulata
	Alternanthera ficoidea*#
	Alternanthera pungens*#
	Amaranthus viridis#
	Deeringia amaranthoides#
	Gomphrena celosioides*#
Amaryllidaceae	Crinum angustifolium
	Crinum pedunculatum
	Proiphys infundibularis
Anacardiaceae	Euroschinus falcata var. falcata
	Mangifera indica*#
	Pleiogynium timorense
Annonaceae	Annona squamosa*
	Meiogyne heteropetala
	Melodorum leichhardtii
	Huberantha nitidissima
Apiaceae	Mackinlaya macrosciadea
Apocynaceae	Allamanda cathartica*#
	Alstonia scholaris
	Alyxia spicata
	Calotropis gigantea
	Carissa spinarum
	Cascabela thevetia*#
	Catharanthus roseus*
	Cryptostegia grandiflora*#
	Cynanchum bowmanii
	Cynanchum carnosum
	Gymnanthera oblonga
	Hoya australis
	Ichnocarpus frutescens
	Marsdenia brevifolia (V)
	Melodinus australis
	Nerium oleander*
	Ochrosia elliptica
	Parsonsia lanceolata
	Parsonsia plaesiophylla
	Parsonsia velutina
	Sarcostemma viminale subsp. brunonianum
	Tabernaemontana orientalis
	Tabernaemontana pandacaqui
Araliaceae	H. (Schefflera) actinophylla
Arecaceae	Archontophoenix alexandrae
	Cocos nucifera*
	Livistona decora
Aristolochiaceae	Aristolochia pubera
	Aristolochia thozetii
Araucariaceae	Araucaria cunninghamii var. cunninghamii
Asteraceae	Acmella grandiflora
	Ageratum conyzoides subsp. conyzoides*#
	Ageratum houstonianum*#
	Bidens alba var. radiata
	Bidens bipinnata#
	Blumea saxatilis
	Calyptocarpus vialis*#
	Coronidium flavum

	Cyanthillium cinereum
	Eclipta prostrata#
	Emilia sonchifolia
	Epalthes australis
	Gamochaeta pensylvanica*
	Peripleura scabra (R)
	Pterocaulon serrulatum var. serrulatum
	Pterocaulon sphacelatum
	Sigesbeckia orientalis*
	Spagneticola trilobata*#
	Synedrella nodiflora*#
	Tithonia diversifolia*#
	Tridax procumbens*#
Avicenniaceae	Avicennia marina subsp. eucalyptifolia
Balsaminaceae	Impatiens walleriana *#
Bignoniaceae	Deplanchea tetraphylla
	Pandorea pandorana
	Spathodea campanulata*#
	Tecoma stans*
Boraginaceae	Coldenia procumbens
	Cordia dichotoma
	Heliotropium indicum
	Heliotropium pauciflorum
	Heliotropium peninsulare
	Heliotropium sp.
	Trichodesma zeylanicum var. zeylanicum#
Burseraceae	Canarium australianum var. australianum
	Garuga floribunda
Byttneriaceae	Waltheria indica
Cactaceae	Opuntia spp.*#
Caesalpiniaceae	Bauhinia (Lysiphyllum) hookeri
	Bauhinia variegata*
	Caesalpinia bonduc
	Cassia fistula*
	Cassia sp. 'Paluma Range' (R)
	Chamaecrista absus
	Chamaecrista rotundifolia
	Cynometra iripa
	Delonix regia*
	Labichea nitida
	Lysiphyllum hookeri
	Senna alata*#
	Senna gaudichaudii
	Senna obtusifolia*#
	Tamarindus indica*
Campanulaceae	Wahlenbergia caryophylloides
	Wahlenbergia communis
Capparaceae	Capparis arborea
	Capparis nummularia
	Capparis sepiaria
Caryophyllaceae	Polycarpaea corymbosa var. corymbosa
Casuarinaceae	Allocasuarina torulosa
	Casuarina equisetifolia subsp. incana
Celastraceae	Denhamia oleaster
	Elaeodendron melanocarpum
	Maytenus disperma
Chenopodiaceae	Tecticornia australasica
	Tecticornia halocnemoides subsp. tenuis
	Tecticornia indica subsp indica
	Tecticornia indica subsp. julacea
	Salsola australis
	Suaeda arbusculoides
Cleomaceae	Cleome viscosa#
Clusiaceae	Hypericum gramineum
Cochlospermaceae	Cochlospermum gillivraei
Colchicaceae	Gloriosa superba*
	Iphigenia indica
Combretaceae	Lumnitzera racemosa
	Quisqualis indica*
	Terminalia arenicola
	Terminalia catappa
	Terminalia melanocarpa
	Terminalia muelleri
	Terminalia porphyrocarpa
	Terminalia microcarpa
Commelinaceae	Commelina ciliata
	Commelina diffusa
	Commelina ensifolia
	Murdannia graminea
	Tradescantia spathacea*#
Convolvulaceae	Bonamia dietrichiana (R)
	Bonamia media
	Cuscuta campestris*
	Evolvulus alsinoides
	Ipomoea abrupta
	Ipomoea indica
	Ipomoea macrantha
	Ipomoea nil*
	Ipomoea pes-caprae subsp. brasiliensis
	Ipomoea plebeia
	Ipomoea quamoclit*
	Ipomoea velutina
	Jacquemontia paniculata
	Merremia dissecta*
	Merremia quinquefolia*#
	Xenostegia tridentata
Crassulaceae	Bryophyllum delagoense*#
	Bryophyllum pinnatum*#
Cucurbitaceae	Diplocyclos palmatus
Cycadaceae	Cycas media
Cymodoceaceae	Cymodocea serrulata
	Halodule uninervis
	Springodium isoetifolium
Cyperaceae	Abildgaardia ovata
	Abildgaardia vaginata
	Bulbostylis barbata
	Cyperus aquatilis
	Cyperus conicus
	Cyperus dietrichiae
	Cyperus difformis
	Cyperus enervis
	Cyperus eragrostis*#
	Cyperus fulvus
	Cyperus involucratus*#
	Cyperus iria
	Cyperus lucidus
	Cyperus pedunculatus
	Cyperus perangustus
	Cyperus polystachyos
	Cyperus rotundus*#
	Cyperus scaber
	Cyperus scariosus
	Cyperus spacelatus
	Cyperus tetracarpus
	Cyperus zollingeri
	Eleocharis dulcis
	Eleocharis equisetina

	Eleocharis spiralis
	Fimbristylis dichotoma
	Fimbristylis ferruginea
	Fimbristylis polytrichoides
	Gahnia aspera
	Lepidosperma laterale var. laterale
	Schoenoplectus litoralis
	Scleria brownii
	Scleria ciliaris
	Scleria mackaviensis
	Scleria sphacelata
	Tetraria capillaris
Dioscoreaceae	Dioscorea bulbifera
	Dioscorea transversa
Dracaenaceae	Sansevieria trifasciata*#
Droseraceae	Drosera spatulata
Ebenaceae	Diospyros geminata
Elaeocarpaceae	Elaeocarpus obovatus
Ericaceae	Leucopogon cuspidatus
	Trochocarpa laurina
Eriocaulaceae	Eriocaulon sp.
Euphorbiaceae	Alchornea ilicifolia
	Euphorbia atoto
	Euphorbia bifida
	Euphorbia hirta*#
	Euphorbia macgillivrayi
	Euphorbia micradenia
	Euphorbia prostrata*
	Claoxylon tenerifolium
	Croton arnhemicus
	Croton magneticus (V)
	Euphorbia cyathophora*#
	Euphorbia tannensis subsp. eremophila
	Excoecaria agallocha
	Homalanthus populifolius
	Jatropha gossypiifolia*#
	Macaranga involucrata var. mallotoides
	Macaranga tanarius
	Mallotus nesophilus
	Mallotus philippensis
	Microstachys chamaelea
	Ricinus communis*#
	Tragia novae-hollandiae
Fabaceae	Abrus precatorius
	Aeschynomene villosa
	Alysicarpus vaginalis*
	Aphyllodium biarticulatum
	Cajanus reticulatus var. reticulatus
	Canavalia papuana
	Canavalia rosea
	Castanospermum australe
	Clitoria ternatea*#
	Crotalaria aridicola subsp. glabrata
	Crotalaria brevis
	Crotalaria goreensis*#
	Crotalaria laburnifolia*
	Crotalaria medicaginea
	Crotalaria mitchellii
	Crotalaria montana
	Crotalaria pallida var. obovata*#
	Crotalaria retusa var. retusa*
	Crotalaria spectablis*
	Derris trifoliata
	Desmodium filiforme
	Desmodium gunnii
	Desmodium muelleri
	Desmodium rhytidophyllum
	Desmodium scorpiurus*#
	Desmodium tortuosum*#
	Desmodium triflorum
	Flemingia parviflora
	Galactia sp.
	Galactia tenuiflora
	Glycine tabacina
	Glycine tomentella
	Indigofera brevidens var. brevidens
	Indigofera hirsuta
	Indigofera linifolia
	Indigofera linnaei
	Indigofera pratensis
	Indigofera tinctoria
	Indigofera tryonii
	Macroptilium atropurpureum*#
	Millettia pinnata
	Mucuna gigantea
	Pycnospora lutescens
	Rhynchosia minima var. minima
	Sesbania cannabina var. cannabina
	Sophora tomentosa subsp. australis
	Stylosanthes hamata*
	Stylosanthes humilis*
	Stylosanthes scabra*
	Tephrosia astralagoides
	Tephrosia brachyodon + 3 var.
	Tephrosia filipes
	Tephrosia gaudium-solis
	Tephrosia juncea
	Tephrosia macrostachya
	Tephrosia sp. 'Picnic Bay'
	Vigna marina
	Zornia dycticarpa
Flacourtiaceae	Scolopia braunii
Flagellariaceae	Flagellaria indica
Gentianaceae	Schenkia australis*#
Goodeniaceae	Scaevola taccada
Haemodoraceae	Haemodorum coccineum
Haloragaceae	Gonocarpus acanthocarpus
Helicteraceae	Helicteres semiglabra
Hemerocallidaceae	Dianella caerulea
	Dianella longifolia
Hernandiaceae	Gyrocarpus americanus
Hydrocharitaceae	Blyxa sp.
	Enhalus acoroides
	Halophila decipiens
	Halophila minor
	Halophila ovalis
	Halophila spinulosa
	Halophila tricostata
	Thalassia hemprichii
Hypoxidaceae	Curculigo ensifolia
Lamiaceae	Anisomeles moschata
	Callicarpa candicans
	Clerodendrum floribundum
	Clerodendrum heterophyllum forma baueri
	Clerodendrum inerm
	Clerodendrum longiflorum var. glabrum

	Glossocarya hemiderma
	Hyptis (M) suaveolens*#
	Leucas decemdentata*
	Ocimum basilicum*
	Plectranthus diversus
	Premna serratifolia
	Vitex rotundifolia
	Vitex trifolia var. subtrisecta
	Vitex trifolia var. trifolia
Lauraceae	Cassytha filiformis
	Cassytha pubescens
	Cryptocarya hypospodia
	Cryptocarya triplinervis
	Cryptocarya vulgaris
	Litsea fawcettiana
	Litsea glutinosa
	Litsea reticulata
	Neolitsea brassiii
	Neolitsea dealbata
Laxmanniaceae	Eustrephus latifolius
	Lomandra filiformis
	Lomandra hystrix
	Lomandra longifolia
	Lomandra multiflora
Lecythidaceae	Barringtonia asiatica
	Planchonia careya
Lentibulariaceae	Utricularia sp.
Loganiaceae	Mitrasacme sp.
	Strychnos psilosperma
Loranthaceae	Amyema bifurcata
	Amyema congener
	Amyema conspicua subsp. conspicua
	Amyema miquelii
	Amyema sanguinea
	Dendrophthoe glabrescens
	Dendrophthoe vitellina
	Lysiana maritima
Lythraceae	Sonneratia alba
Maesaceae	Maesa dependens var. pubescens
Malpighiaceae	Rhyssopterys timorensis
Malvaceae	Abelmoschus moschatus subsp. tuberosus
	Abutilon auritum
	Abutilon indicum var. australiense = A. guineense?
	Abutilon oxycarpum
	Hibiscus divaricatus
	Hibiscus heterophyllus
	Hibiscus meraukensis
	Hibiscus tiliaceus
	Malvastrum americanum*#
	Malvastrum coromandelianum*#
	Sida acuta*
	Sida atherophora
	Sida cordifolia
	Sida filiformis
	Sida hackettiana
	Sida magnifica
	Sida rhombifolia*#
	Thespesia populnea
	Urena lobata*#
Melastomataceae	Melastoma affine
Meliaceae	Aglaia elaeagnoidea
	Melia azedarach
	Turraea pubescens
	Xylocarpus moluccensis
Memecylaceae	Memecylon pauciflorum var. pauciflorum
Menispermaceae	Hypserpa decumbens
	Pachygone ovata
	Pleogyne australis
	Sarcopetalum harveyanum
	Stephania japonica
	Tinospora smilacina
Menyanthaceae	Nymphoides indica
Mimosaceae	Acacia aulacocarpa
	Acacia (Vachellia) bidwillii
	Acacia crassicarpa
	Acacia flavescens
	Acacia holosericea
	Acacia jackesiana (R)
	Acacia leptocarpa
	Acacia leptostachya
	Acacia polystachya
	Acacia simsii
	Acacia spirorbis subsp. solandri
	Albizia lebbeck
	Albizia procera
	Entada phaseoloides
	Leucaena leucocephala*#
	Falcataria toona
	Prosopsis pallida*
	Samanea saman*
Molluginaceae	Glinus oppositifolius
	Mollugo verticilla
Monimiaceae	Wilkiea huegeliana
	Wilkiea pubescens
Moraceae	Ficus benghalensis*
	Ficus benjamina
	Ficus congesta
	Ficus hispida var. hispida
	Ficus microcarpa
	Ficus obliqua
	Ficus opposita
	Ficus racemosa var. racemosa
	Ficus rubiginosa
	Ficus superba var. henneana
	Ficus virens var. sublanceolata
	Maclura cochinchinensis
	Trophis scandens
Myoporaceae	Myoporum acuminatum
Myrsinaceae	Aegiceras corniculatum
	Myrsine subsessilis
	Myrsine variabilis
Myrtaceae	Corymbia clarksoniana
	Corymbia dallachiana
	Corymbia erythrophloia
	Corymbia intermedia
	Corymbia tessellaris
	Corymbia trachyphloia
	Eucalyptus camaldulensis
	Eucalyptus drepanophylla
	Eucalyptus exserta
	Eucalyptus platyphylla
	Eucalyptus platyphylla x tereticornis
	Eucalyptus portuensis
	Eucalyptus tereticornis
	Eugenia reinwardtiana
	Gossia bidwillii
	Lophostemon confertus
	Lophostemon grandiflorus
	Lophostemon suaveolens
	Melaleuca dealbata
	Melaleuca leucadendra

	Melaleuca nervosa
	Melaleuca (Callistemon) recurva
	Melaleuca (Callistemon) viminalis
	Melaleuca viridiflora
	Osbornea octodonta
	Syzygium oleosum
Nyctaginaceae	Boerhavia burbidgeana
	Boerhavia mutabilis
	Boerhavia dominii
	Boerhavia “Nelly Bay”
	Pisonia aculeata
Nymphaeaceae	Nymphaea gigantea
Oleaceae	Chionanthus ramiflora
	Jasminum didymum subsp. racemosum
Onagraceae	Ludwigia octovalvis
Orchidaceae	Calanthe triplicata
	Cymbidium canaliculatum
	Cymbidium madidum
	Dendrobium discolor
	Dendrobium x ruppiosum
	Dockrillia bowmanii
	Dockrillia mortii
	Dockrillia teretifolia
	Geodorum densiflorum
	Habenaria ferdinandi
	Nervilia holochila
Oxalidaceae	Oxalis corniculata
Pandanaceae	Pandanus cookii
	Pandanus tectorius
Passifloraceae	Passiflora aurantia var. aurantia
	Passiflora edulis*
	Passiflora foetida*#
	Passiflora suberosa*
Pentapetaceae	Melhania oblongifolia
Phyllanthaceae	Acetephila sessilifolia
	Antidesma ghaesembilla
	Antidesma parvifolium
	Breynia oblongifolia
	Bridelia leichhardtii
	Flueggia virosa subsp. melanthesoides
	Glochidion apodogynum
	Glochidion harveyanum
	Glochidion lobocarpum
	Phyllanthus fuernrohrii
	Phyllanthus novae-hollandiae
	Phyllanthus simplex
	Phyllanthus virgatus
	Sauropus albiflorus
Picrodendraceae	Petalostigma pubescens
Piperaceae	Peperomia blanda
	Piper sp.
Pittosporaceae	Bursaria incana
	Bursaria spinosa subsp. spinosa
	Bursaria tenuifolia
	Pittosporum ferrugineum subsp. linifolium
	Pittosporum spinescens
Plumbaginaceae	Aegialitis annulata
Poaceae	Alloteropsis semialata
	Ancistrachne uncinulata
	Aristida calycina var. calycina
	Aristida gracilipes
	Aristida holathera
	Aristida queenslandica var. dissimilis
	Aristida spuria
	Arundinella nepalensis
	Arundinella setosa
	Axonopus compressus
	Bambusa sp.*#
	Bothriochloa bladhii subsp. glabra*
	Bothriochloa decipiens
	Bothriochloa pertusa*
	Brachyachne convergens
	Cenchrus echinatus*#
	Chionachne cyathopoda
	Chloris inflata*
	Chloris virgata*
	Chrysopogon fallax
	Chrysopogon filipes
	Cymbopogon ambiguus
	Cymbopogon bombycinus
	Cymbopogon queenslandicus
	Cymbopogon refractus
	Cynodon dactylon*
	Dactyloctenium aegypticum*#
	Dichanthium sp.
	Digitaria brownii
	Digitaria ciliaris*
	Digitaria diffusa
	Digitaria leucostachya
	Digitaria minima
	Digitaria parviflora
	Digitaria ramularis
	Echinochloa colona*
	Ectrosia leporina
	Eleusine indica*
	Enneapogon nigricans
	Enneapogon robustissimus
	Eragrostis cumingii
	Eragrostis elongata
	Eragrostis interrupta
	Eragrostis leptostachya
	Eragrostis sororia
	Eragrostis tenuifolia*
	Eriachne obtusa
	Eriachne rara
	Eriachne squarrosa
	Eriachne triodioides
	Heteropogon contortus
	Heteropogon triticeus
	Imperata cylindrica
	Ischaemum australe var. villosum
	Leersia hexandra
	Lepturus repens
	Megathyrsus (Panicum) maximus*#
	Melinus repens*#
	Mnesithea rottboellioides
	Oplismenus aemulus
	Oplismenus burmannii
	Ottochloa nodosa
	Panicum decompositum
	Panicum effusum
	Panicum mitchellii
	Panicum trichoides
	Paspalidium disjunctum
	Paspalidium distans
	Paspalidium gracile
	Paspalidium rarum
	Paspalum vaginatum
	Pennisetum ciliare

	Perotis rara
	Phragmites australis
	Phragmites vallatoria
	Setaria australiensis
	Setaria surgens
	Sarga (Sorghum) leiocladum
	Sarga (Sorghum) plumosum
	Sorghum bicolor*
	Spinifex sericeus
	Sporobolus jacquemontii*
	Sporobolus pyramidalis*#
	Sporobolus virginicus
	Themeda triandra
	Thuarea involuta
	Triodia stenostachya
	Urochloa mosambicensis*
	Urochloa mutica
	Urochloa subquadripara
Polygonaceae	Antigonon leptopus*#
	Persicaria attenuata
Portulacaceae	Portulaca filifolia
	Portulaca oleracea
	Portulaca pilosa
Proteaceae	Grevillea parallela
	Grevillea pteridifolia
	Persoonia falcata
	Xylomelum scottianum
Putranjivaceae	Drypetes deplanchei
Rhamnaceae	Alphitonia excelsa
	Colubrina asiatica
	Emmenosperma alphitonioides
	Zizyphus mauritiana
Rhizophoraceae	Bruguiera exaristata
	Bruguiera gymnorrhiza
	Carallia brachiata
	Ceriops tagal
	Rhizophora apiculata
	Rhizophora stylosa
Rosaceae	Rubus moluccanus
Rubiaceae	Aidia racemosa
	Coelospermum paniculatum
	Cyclophyllum (Canthium) coprosmoides
	Guettarda speciosa
	Ixora timorensis
	Larsenaikia ochreata
	Mitracarpus hirtus*
	Morinda canthoides
	Morinda citrifolia
	Nauclea orientalis
	Oldenlandia corymbosa
	Pavetta australiensis var. australiensis
	Pogonolobus reticulatus
	Psychotria dallachiana
	Psychotria filzalanii
	Psychotria poliostemma
	Psydrax (Canthium) attenuata
	Psydrax lamprophylla
	Psydrax odorata
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	Arytera divaricata
	Atalaya multiflora
	Cupaniopsis anacardioides
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	Ganophyllum falcatum
	Harpullia hillii
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Indian Siris	6C
Indian Tulip Tree	8P
Ixora	5E
Japanese Sunflower	8F
Joyweed	5C
Kamala	8P
Kangaroo Grass	2E
Kapok Tree	8g
Khaki Weed	5C
Knotweed	7E
Lancewood	8E
Lantana	5F
Lantern Bush	8P
Large-leafed Orange Mangrove	1E
Large-seeded Gahnia	2C
Large Strangler Fig	4A
Latherleaf	8K
Leichhardt Tree	5D
Light Blue Snakeweed	5B

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