







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 go to 4
(Check **Group 4** also)
- 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

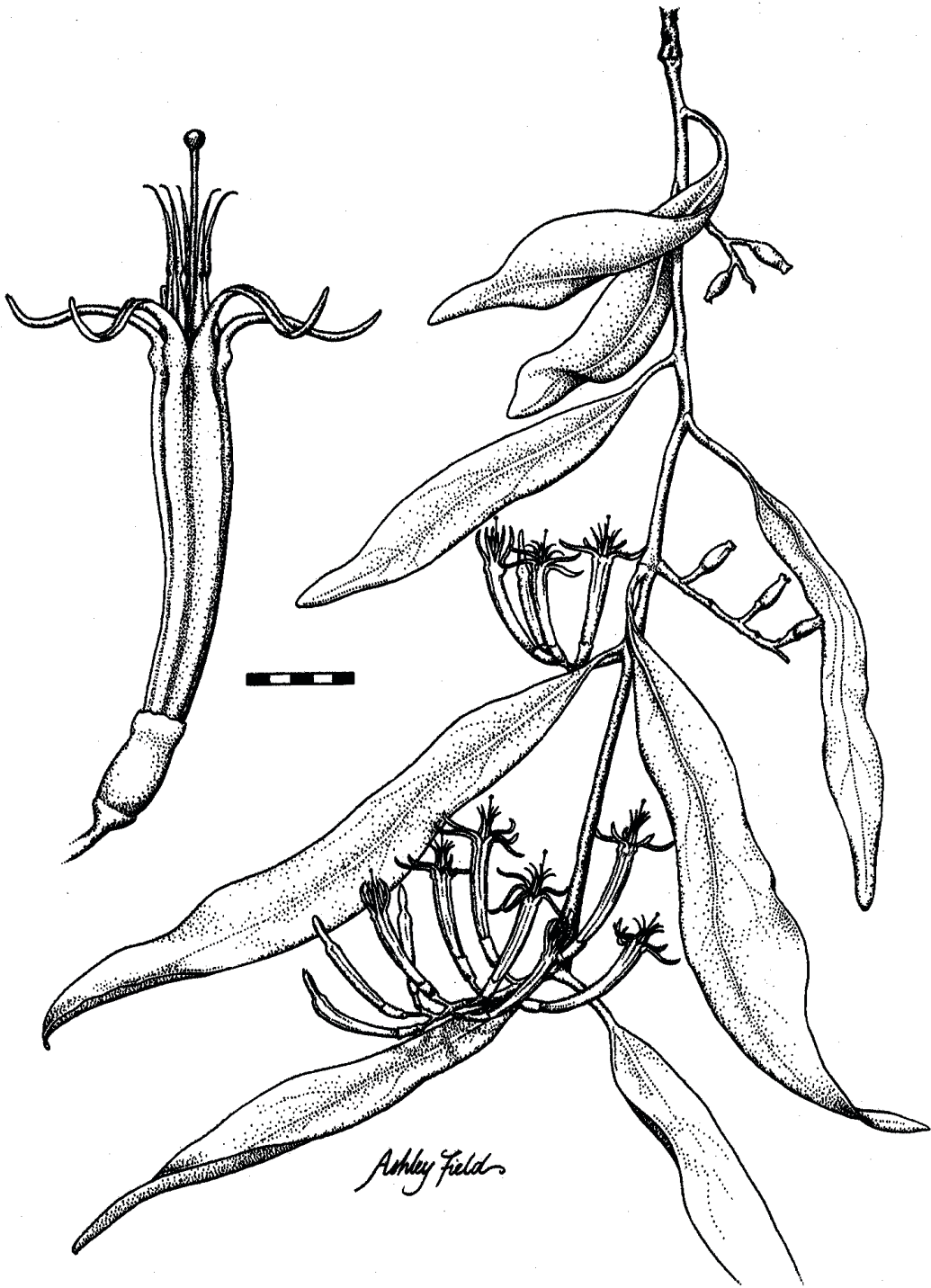
- 6 Vines with pea-shaped flowers (C), fruit a legume i.e., bean-like, may be short go to 7
- 6* Vines lacking pea-shaped flowers, fruit not a legume go to 8

- 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**



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)

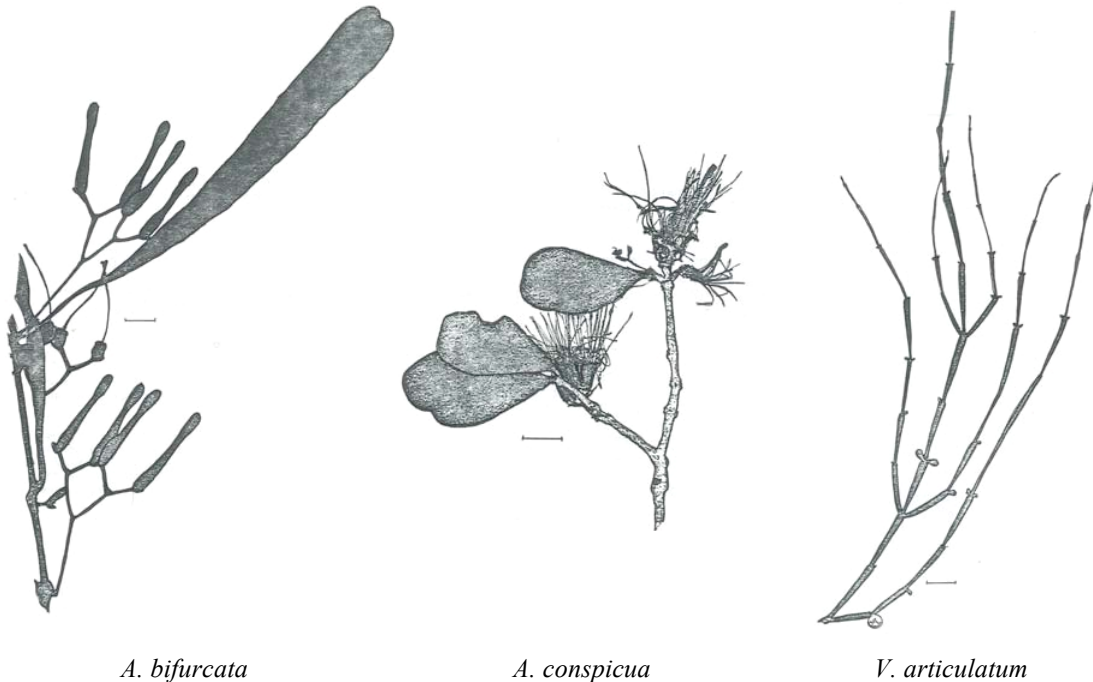
Leaves opposite, 12-45 mm wide. Flowers **green**, flowers in groups of 3. Hosts variable, but often on *Alphitonia* and *Terminalia*. A similar species *Amyema congener* (not illustrated) has opposite leaves 10-15 mm wide. Flowers are green to yellow, in groups of 3. Hosts commonly *Acacia* and *Geijera*.

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 its 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.



Lysiana maritima (Loranthaceae)

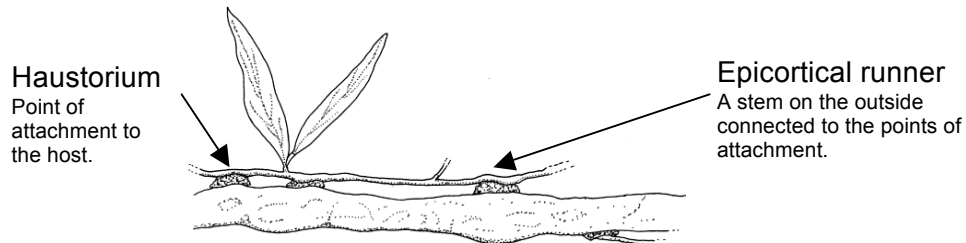
Lysiana, from *lysis* a Greek word meaning splitting, i.e., differs from the genus *Loranthus*.

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.

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

Sarcostemma from the Greek *sarx/sarcos* – fleshy and *stemma* – crown, referring to the fleshy corona in the flower.

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

S. 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 exerted 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 (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

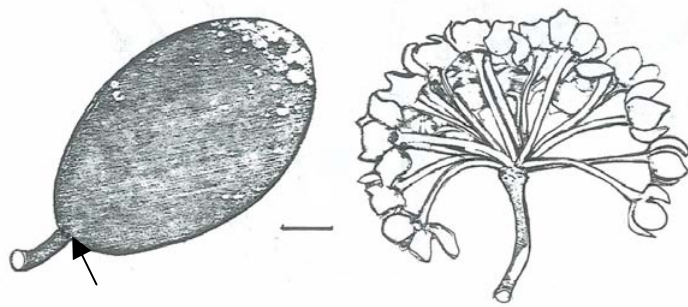
C. carnosum

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)

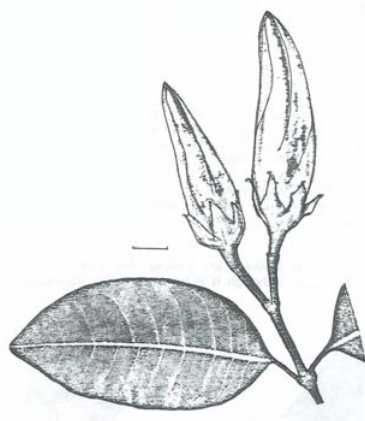
Gymnanthera, from the Greek *gymnos* – naked, and *anthere* – anther, anthers lack hairs.

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.

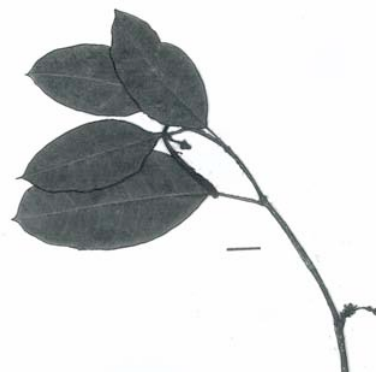
GROUP 3.E Vine, apparently leafless.

Cassytha pubescens (Dodder Vine, Dodder Laurel – Lauraceae)

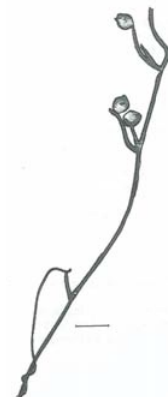
Cassytha, from the Greek name *casytas* – dodder, similar name used in Arabic and Syrian. This leafless, partly parasitic twiner, pubescent at least when young, has stems > 1 mm diameter. It clings to the neighbouring vegetation by small suckers. Plants are often orange in appearance. Fruits are pale 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.

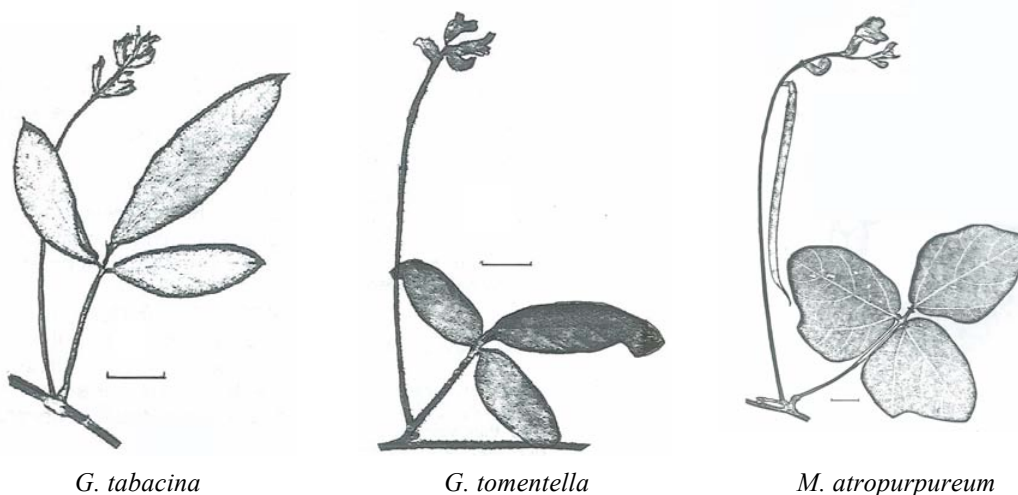
Glycine tabacina* and *G. tomentella (Glycine – Fabaceae)

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.



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

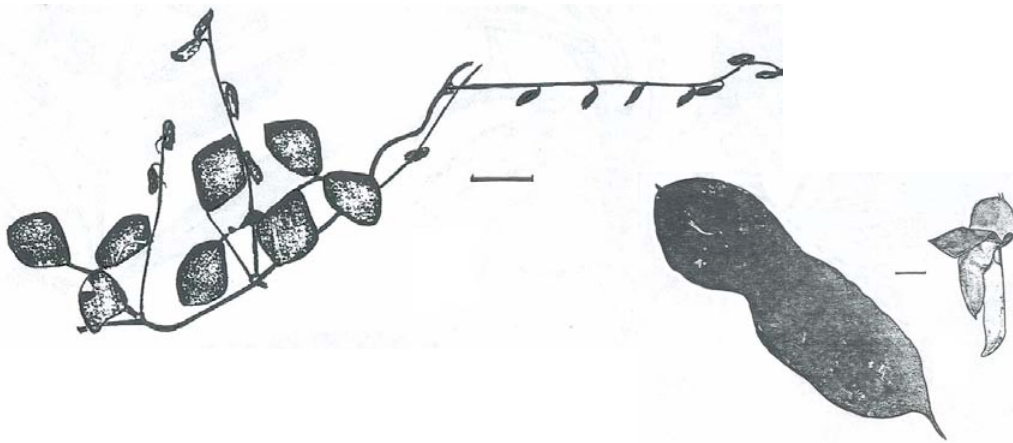
Rhynchosia, from *rhynchos* a Greek word for beak or snout, referring to the keel of the flower.

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)

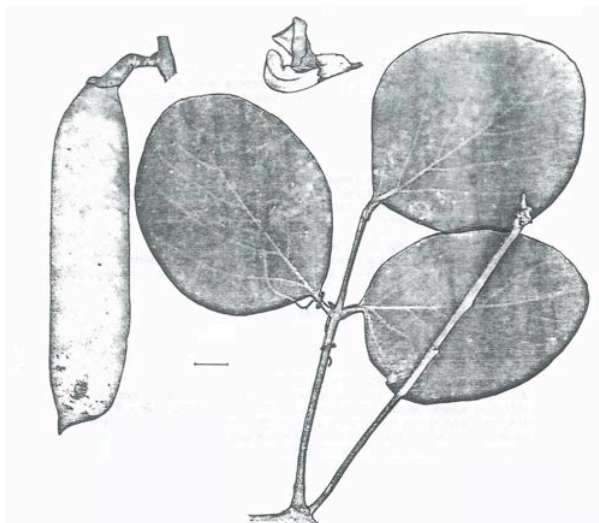
Canavalia, from a Malabar name, *kanavali*, applied to one of the species.

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**.

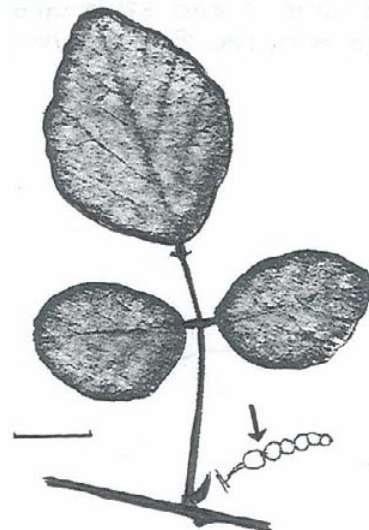
Desmodium rhytidophyllum (Fabaceae)

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.

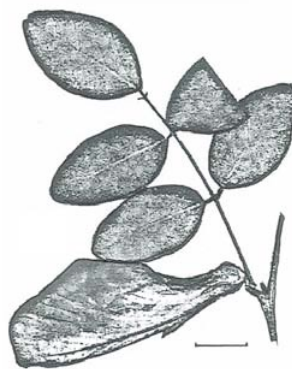
Derris trifoliata (Fabaceae)

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

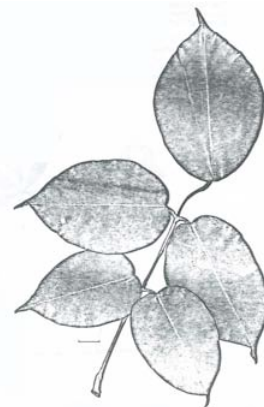
A tall, woody climber usually found growing along stream banks or on rainforest margins. Leaflets 5-7, shiny, petiole dries dark-coloured. Flowers are borne in slender racemes, may be **white, pink or mauve**. The pods are thin and flat.



A. precatorius



C. ternatea



D. trifoliata

Vigna marina (Not illustrated – Fabaceae)

Vigna, named for Domenico 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)

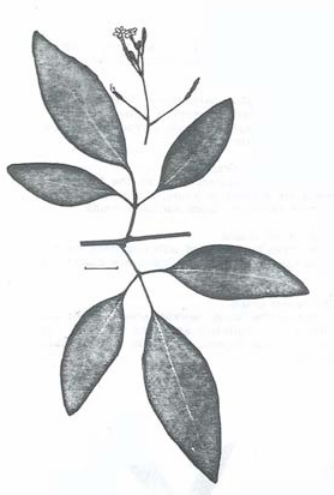
Jasminum, this is the Latinized form of the Persian *yasmin*.

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.

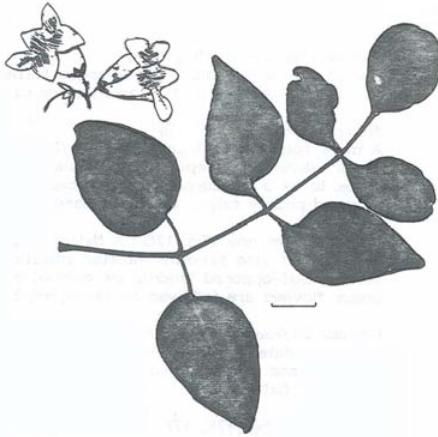
Pandorea pandorana (Wonga Vine – Bignoniaceae)

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



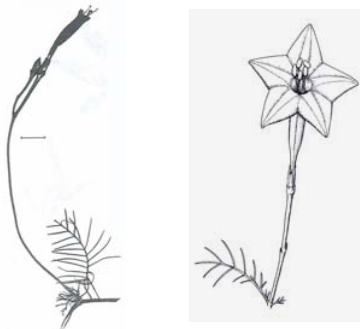
Tribulus sp.

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

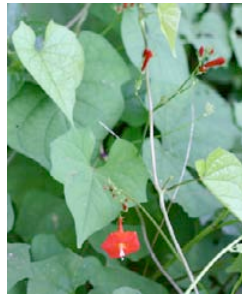
Ipomoea quamoclit (Star of Bethlehem - Convolvulaceae)*

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

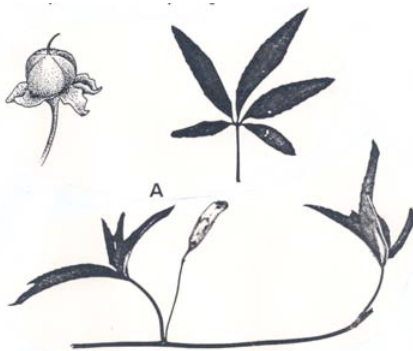
Merremia quinquefolia (Snake Vine – Convolvulaceae)

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.

Merremia dissecta (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.



M. quinquefolia



M. dissecta

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.

Cayratia trifolia (Native Grape – Vitaceae)

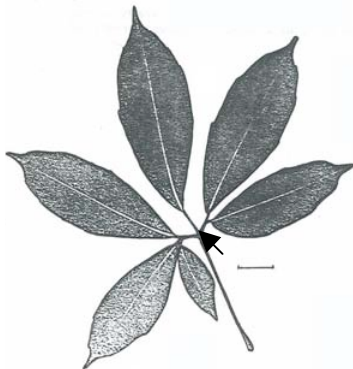
Cayratia, from the Vietnamese words, *cay rat long*.

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. *Cayratia 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)

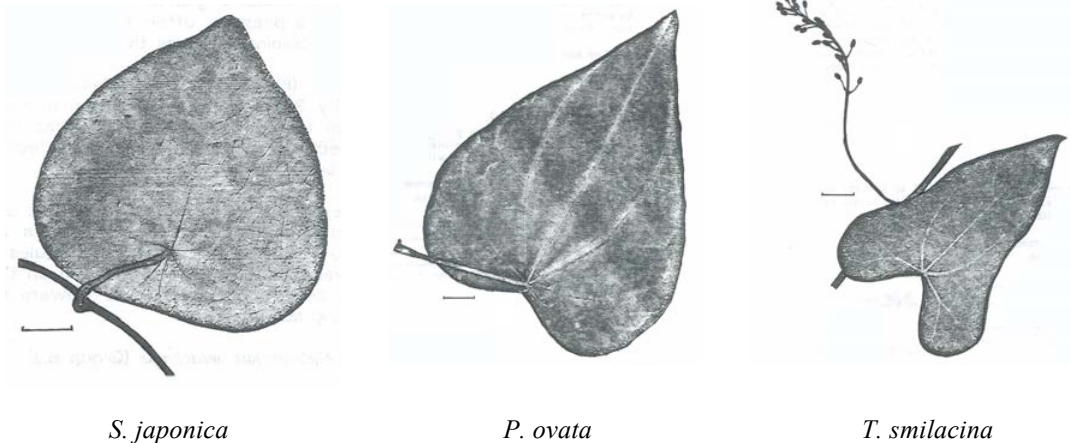
Stephania, from the Greek *stephanos* – crown, probably referring to the inflorescence. Leaves peltate; flowers **white** in dense clusters; fruits are red drupes to 5 mm long.

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 *tinós* – 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.



Dioscorea bulbifera (Air Potato – Dioscoreaceae)

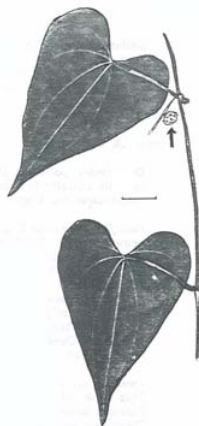
Dioscorea, named for Dioscorides, Greek physician and botanist, 1st century AD.

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.

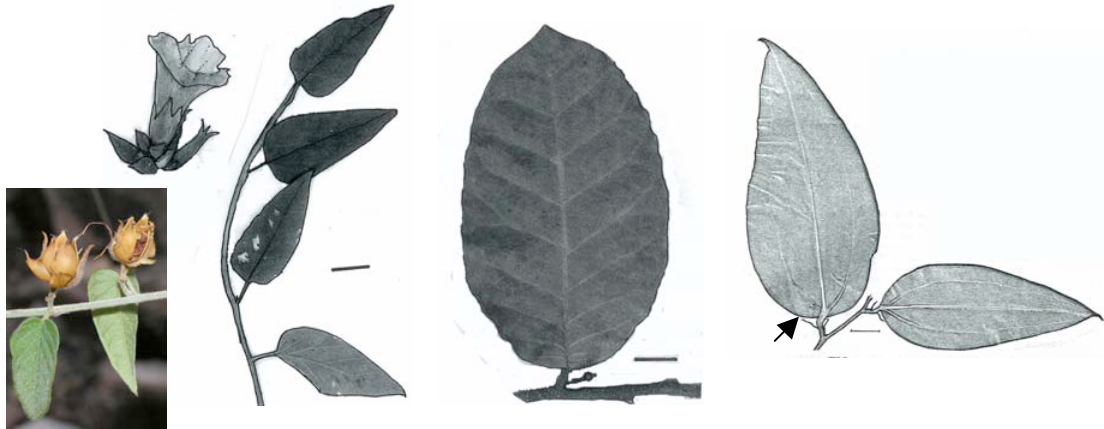
Trophis scandens (Burny Vine, syn. *Malaisia* – Moraceae)

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)

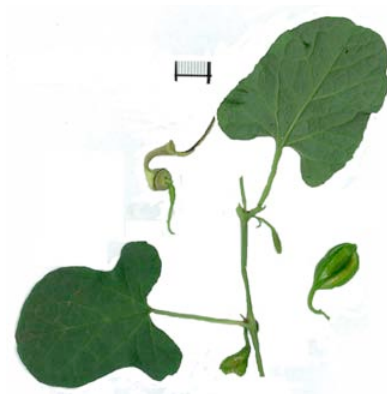
Aristolochia, from the Greek *aristos* – best and from the Latin *lochia* – childbirth, referring to the shape of the flower resembling a pregnant woman.

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.

Tendrils present, often tightly coiled. Flowers to about 10 cm diameter; **red** becoming white with age. Fruit pale green turning purplish.

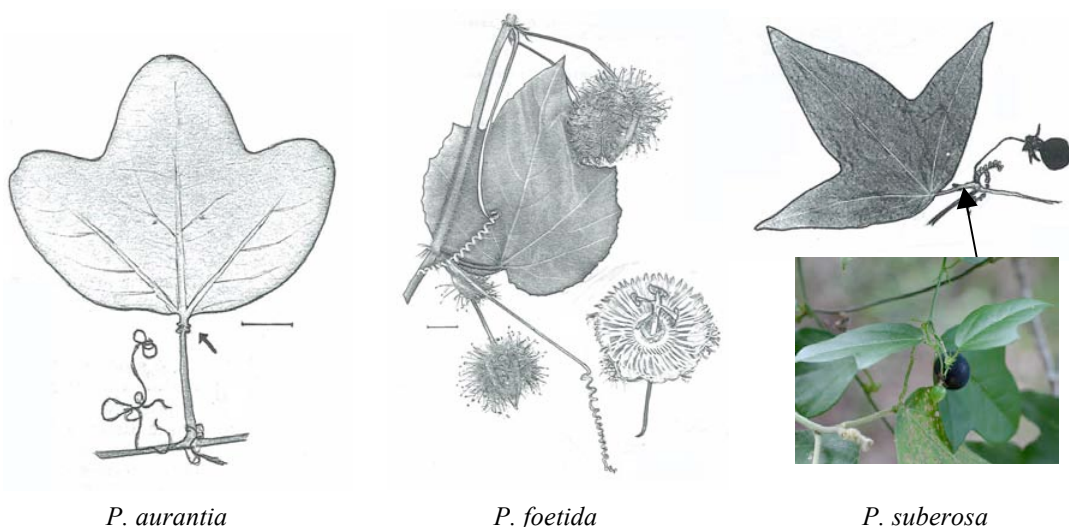
Passiflora foetida (Stinking Passion Flower – Passifloraceae)*

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.



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.

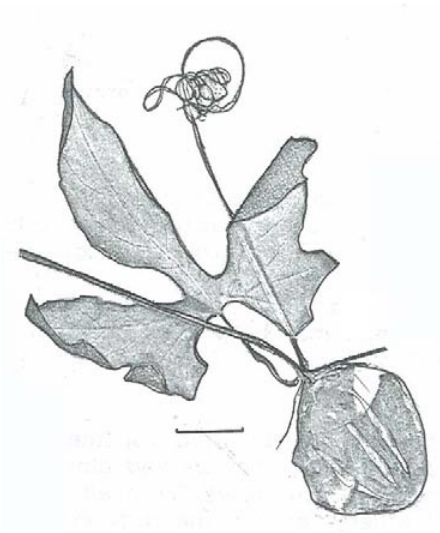
Diplocyclos palmatus (Native Bryony, Striped Cucumber – Cucurbitaceae)

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

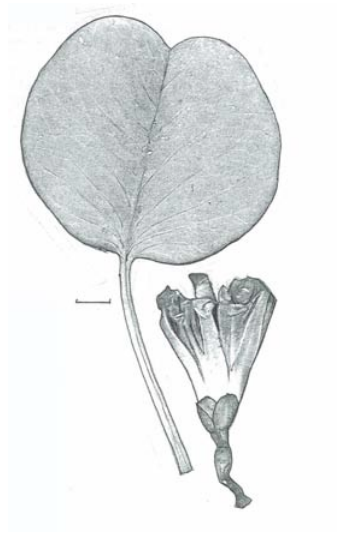
Leaves 3-5-lobed, tendrils usually branched, much twisted. Corolla **white to greenish**. Ripe fruit a berry, red with white longitudinal markings to 3 cm long.

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.