100 COMMON VASCULAR PLANTS OF THE NEE SOON SWAMP FOREST, SINGAPORE

S. Y. Tan, C. Y. Koh, H. J. M. Siow, T. Li, H. F. Wong, A. Heyzer and **H. T. W. Tan**

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KEYS TO THE COMMON VASCULAR PLANTS OF THE NEE SOON SWAMP FOREST

This manual consists of the keys and descriptions to 112 common vascular plants of the Nee Soon Swamp Forest. The keys include:

1. Key to the main groups (p. 5)
2. Key to ferns and lycophytes (pp. 6–8)
3. Key to climbers (pp. 9–12)
4. Key to trees and shrubs (pp. 13–23)

To improve user-friendliness, the keys have been written as follows:

a) With minimum technical terms, which if unavoidable, are usually accompanied by a short explanation immediately after.
b) With vegetative characteristics so that sterile specimens or non-flowering or -fruiting plants may be identified. Since most plants are unlikely to be flowering when they are encountered, the keys should still be useful.

When presented with an unknown vascular plant specimen, please use the key to the main groups first to determine to which it belongs. Once established, please proceed onto the corresponding key that applies to the specimen. If the specimen does not match any of the alternatives (leads) in the key, then backtrack to where it did and proceed again, assuming that the specimen is one of the 112 species covered in this book. Only by matching the leads at each stage will the identification be made.

It must be emphasized that the keys apply only to the 112 vascular plant species that have been designated as common from the numerous surveys and vegetation plots conducted by the research team. It may be possible that your specimen is a species that is not covered by the keys. If so, then it cannot be identified using these keys.

Assuming the specimen could be identified by the keys and you have obtained a tentative identity, please check that it matches the description and photographs in the species accounts. If it does, then you have confirmed the identity of the specimen.

All keys are imperfect, so if there are any points of vagueness or inaccuracy, please feel free to contact the authors of the keys for them to be updated and improved. Feedbacks from users are always welcome!

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Key to the Main Groups of the Common Vascular Plants of the Nee Soon Swamp Forest

Please note that if your specimen does not match any of the leads in the key, then it may not be a species identified by the key.

1. Mature leaves minute, often less than 1 cm long; plants bear spore-bearing sacs (sporangia) in cones .. ..Herbs (Lycophytes)
1. Mature leaves much larger, often 3 cm to 1.5 m long; plants bear visible sporangia on the leaves (ferns) or produce flowers, fruits and seeds (angiosperms)..... 2

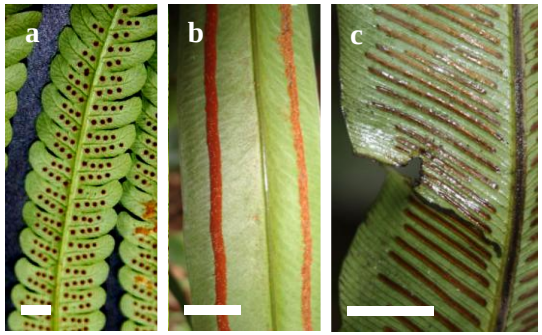
2. Young leaves are coiled up as fiddleheads; spores are found on the lower surface of mature leaves ....Herbs or trees (Ferns)
2. Young leaves are not coiled up as fiddleheads; plants produce flowers, fruits, and seeds (angiosperms)..... 3

3. Plants with relatively long and slender stems that creep on the ground and/or climb on other nearby plants or structures for mechanical support; plant bodies of some species are equipped with tendrils, hooks or spines that may facilitate climbing..... .....Climbers
3. Plants with single erect main trunk or stem or several erect stems that do not need external mechanical support; plant bodies either armed or not 4

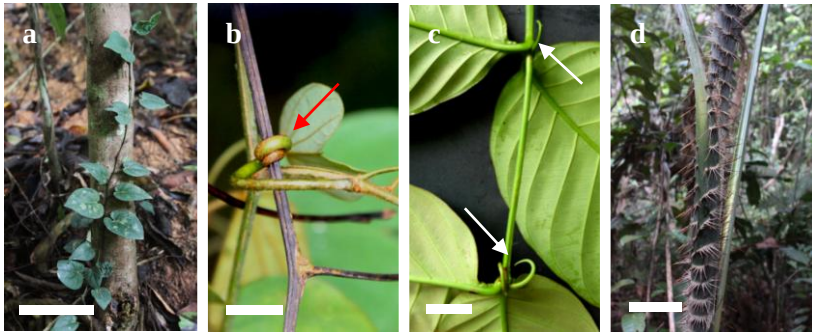
4. Plants non-woody (herbaceous); mature plants not more than 40 cm tall ..... Herbs (*Labisia pumila*)
4. Plants woody; mature plants more than 1 m tall..... ..... Trees and shrubs

A common lycophyte, *Lycopodiella cernua* that bears minute leaves and cones bearing spore-bearing sacs. Scale bar = 1 cm.

A fiddlehead of the elephant fern, *Angiopteris evecta*. Scale bar = 2 cm.



Sporangia are borne on the lower surface of the leaf blade of mature fern leaves. These spore-bearing structures form clusters (sori) of various arrangements, either circular (a) or linear (b, c), depending on species. Scale bars = 0.5 cm (a), 1 cm (b), 2 cm (c).



a, *Piper caninum* is one of the common unarmed climbers that creep on the ground and later climb on nearby trees. Other species of climbers have tendrils (b, *Bauhinia semibifida* var. *semibifida*), hooks (c, *Uncaria longiflora* var. *pteropoda*) or spines (d, *Plectocomia elongata*) that help to cling on other plants for support while climbing upwards the canopy. Scale bars = 5 cm (a), 1 cm (b), 2 cm (c), 10 cm (d).

Labisia pumila (*kacip Fatimah*), is the only herb in the list of common vascular plants. Scale bar = 10 cm.

A tree has a prominent, single, woody trunk. Scale bar = 5 m.

Key to the Common Ferns and Lycophytes of the Nee Soon Swamp Forest

Please note that if your specimen does not match any of the leads in the key, then it may not be a species identified by the key.

1. Plants with relatively small, single-veined leaves and cones containing the spore-bearing sacs 2
1. Plants with relatively large, multiple-veined leaves and spore-bearing sacs in clusters (sori).....3

2. Plants with 1 leaf type; stems highly irregularly branched..... .....*Lycopodiella cernua*
2. Plants with 3 leaf types; stems branched a few times only at certain intervals..... *Selaginella ciliaris*

3. Base of leaf stalks distinctly swollen; leaf stalks greenish with prominent white streaks.....*Angiopteris evecta*
3. Base of leaf stalks not swollen; leaf stalks green, greenish brown, brown or brownish black, without white streak.....4

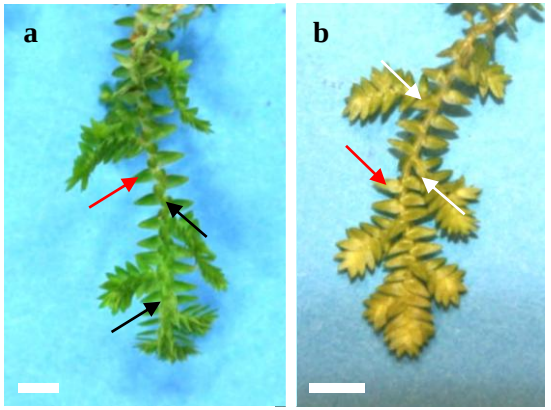
4. Plants with prominent erect stems 5
4. Plants with very short and often non-noticeable stems.....6

5. Base of leaf stalks shortly prickly; hair-like filaments that are present among spore-bearing sacs are shorter than the sacs..... *Cyathea latebrosa*
5. Base of leaf stalks densely covered with brown scales; hair-like filaments that are present among spore-bearing sacs are longer than the sacs.....*Cyathea squamulata*

6. Leaves palmately lobed and often more than 1 m long; sporangia in two rows on the marginal lobes of fertile leaflets..... *Lygodium longifolium*
6. Leaves simple or pinnate and rarely more than 1 m long; sporangia along the leaf or leaflet blade veins, midribs, or seated on the leaf or leaflet blades 7

Cone-bearing leafy branches of *Lycopodiella cernua*. Note the numerous needle-like leaves that cover the entire stem or branch and pendulous cones that bear the spore-bearing sacs. Scale bar = 1 cm.

An individual tree fern, *Cyathea squamulata* with erect, prominent stem (red arrow). Scale bar = 50 cm.



Selaginella ciliaris has three leaf types. Its lateral leaves (red arrows, [a] and [b]) are arranged on both sides of a branch. The appressed, smaller median leaves (black arrows, [a]) are found between the lateral leaves and only visible from above. On the lower surface, an axillary leaf (white arrows, [b]) occurs at each branch fork, overlapping the branches slightly. Scale bars = 0.5 cm.

A palmately-lobed sterile leaflet of the climbing *Lygodium longifolium*. Scale bar = 2 cm.

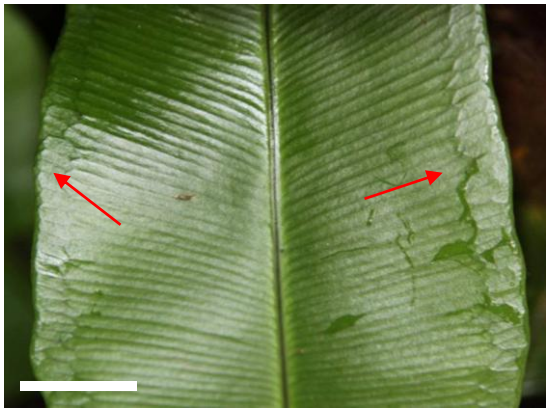
7. Mature leaves simple; sori (spore-bearing sac clusters) elongated and arranged along leaf blade veins 8
7. Mature leaves pinnate; sori (spore-bearing sac clusters) circular or elongated and positioned on leaf blades or along midribs 9

8. Leaves with long stalks that are closely arranged, forming a cluster; leaf blade veins are separate and only join to form several series of areoles near the leaf blade margin..... .....*Trichiogramme alismifolia*
8. Leaves with indistinct, short stalks, often hidden by leaf debris, that are arranged to form a more or less bird-nest-like-structure; leaf blade veins are separate and never join together .....*Asplenium batuense*

9. Base of leaf stalks with much reduced leaflets; sori (spore-bearing sac clusters) along the midribs of leaflet blades ....*Blechnum finlaysonianum*
9. Base of leaf stalks leafletless; sori (spore-bearing sac clusters) inserted on the leaf blades 10

10. Ferns high climbing; fertile leaves bearing sori (spore-bearing sac clusters) on leaflets that are much reduced to fine threads.....11
10. Ferns terrestrial and not climbing or trailing; fertile leaves bearing sori (spore-bearing sac clusters) on leaflets of similar or slightly reduced size compared to those of sterile leaves 12

11. Leaves scrambling near ground and leaves high up in canopy are distinctly different (two leaf types)..... .....*Teratophyllum ludens*
11. Leaves scrambling near the ground and leaves high up in canopy are similar to each other .....*Lomariopsis lineata*



Leaf blade veins of *Trichiogramme alismifolia* unite near leaf blade margin to form series of areoles (arrowed). Scale bar = 2 cm.

The leaves of *Asplenium batuense* are arranged in a rosette to trap leaf litter. Scale bar = 15 cm.

Much reduced, almost circular leaflets of *Blechnum finlaysonianum* found on the leaf stalk. Scale bar = 1 cm.

The leaves produced near the ground by *Lomariopsis lineata* are simple (arrowed). As the plant climbs, the leaves produced higher up become pinnate, and bear up to 20 pairs of leaflets. Scale bar = 10 cm.

12. Leaflet margins lobed; sori (spore-bearing sac clusters) circular and covered by a membrane .... *Mesophlebion chlamydophorum*
12. Leaflet margins entire; sori (spore-bearing sac clusters) long and thin, not covered by a membrane and are inserted between leaflet margins and midribs ..... *Taenitis blechnoides*

A leaflet of *Mesophlebion chlamydophorum* with lobed margins. Scale bar = 2 cm.

Sori (spore-bearing sac clusters) are linear and inserted between the midrib and leaflet blade margin in *Taenitis blechnoides*. Scale bar = 1 cm.

Key to the Common Climbers of the Nee Soon Swamp Forest

Please note that if your specimen does not match any of the leads in the key, then it may not be a species identified by the key.

1. Plants equipped with a whip-like cirrus (slender extension) at the leaf tip; young stems densely covered with whorls of spines .....*Plectocomia elongata*
1. Plants without a cirrus at the leaf tip; stems unarmed, or with tendrils or hooks.....2

2. Leaves palmate, pinnate or trifoliate; mature stems woody...3
2. Leaves simple; mature stems woody or herbaceous 10

3. Leaves palmate; leaf-opposed tendrils present .... *Tetrastigma leucostaphylum*
3. Leaves pinnate or trifoliate; plants without tendrils or sometimes armed with hooks.....4

4. Stipules present; fruit a legume.....*Dalbergia pseudo-sissoo*
4. Stipules absent; fruit a 1-seeded capsule 5

5. Leaves trifoliate; fruit wall surface warty 6
5. Leaves pinnate; fruit wall surface smooth 7

6. Lateral leaflets with asymmetrical leaflet blade base; twigs and leaf stalks, especially young parts, densely hairy..... .....*Agelaea borneensis*
6. Lateral leaflets with symmetrical leaflet blade base; twigs and leaf stalks less hairy or rather hairless..... .....*Agelaea macrophylla*

7. Mature branches covered with lenticels; translucent dots present on the upper surface of the leaf blades 8
7. Mature branches more or less smooth, without lenticels; translucent dots absent on the upper surface of the leaf blades 9

a, Young stems of climbing rattan, *Plectocomia elongata*, are densely covered with whorls of spines. b, As the plant matures, the spines are more or less restricted to the basal part of leaf sheaths (arrowed). Scale bars = 10 cm.

A single palmate leaf of *Tetrastigma leucostaphylum* with four leaflets (leaf stalk arrowed). Note the slightly wavy leaflet margin that is minutely toothed. Scale bar = 5 cm.

The lateral leaflets of *Agelaea borneensis* are not symmetrical at the leaflet blade base, as indicated by the arrows. Scale bar = 2 cm.

A single pinnate leaf of *Connarus semidecandrus* that bears four leaflets (arrowed). The secondary veins of each leaflet are curved towards leaf tip, forming loops that are apparent on the upper surface of the leaf blade. Scale bar = 5 cm.

8. Leaflet pairs up to two; secondary veins curved near the leaflet blade margins and not distinctly looped ....*Connarus grandis*
8. Leaflet pairs up to five; secondary veins often distinctly looped at the leaflet blade margins ....*Connarus semidecandrus*

9. Leaves consisting of numerous, tiny leaflets arranged on two sides of the rachis (leaf axis); leaflets up to 25 pairs ....*Rourea mimosoides*
9. Leaves with fewer, larger leaflets arranged on two sides of the rachis (leaf axis); leaflets up to 9 pairs only .... *Rourea minor*

10. Stems with two leaves per node.....11
10. Stems with one leaf per node.....13

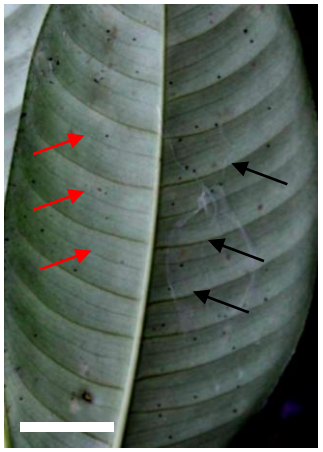
11. Leaf stalks distinctly winged; hooks present in pairs and singly at fixed intervals along the lower surface of branches .. ..*Uncaria longiflora* var. *pteropoda*
11. Leaf stalks hairy or hairless and wingless; hooks absent.....12

12. Stem nodes ringed and slightly swollen; all leaf pairs in one plane.....*Dissochaeta gracilis*
12. Stem nodes without rings and evenly thick with the rest of the stem; each leaf pair is at right angles to the previous and subsequent pairs.....*Salacia maingayi*

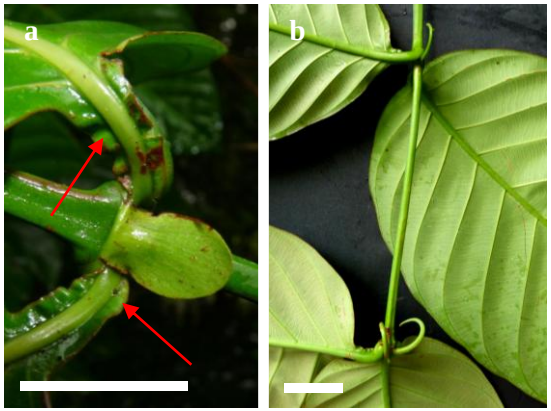
13. Herbaceous climbers with intersecondary veins present between secondary veins; climbing stems more or less squarish in cross section ..... *Rhaphidophora lobbii*
13. Woody climbers without intersecondary veins; climbing stems roundish in cross section.....14

14. Leaf blades bilobed; tendrils present ....*Bauhinia semibifida* var. *semibifida*
14. Leaves often tri-lobed or unlobed; tendrils absent.....15

The pinnate leaves of *Rourea mimosoides* are spirally arranged with one leaf per node. Each leaf has numerous pairs of leaflets on two sides of the rachis. Scale bar = 5 cm.



The numerous intersecondary veins (red arrows) of *Rhaphidophora lobbii* are visible on the lower surface of dried leaf blade. They are fine veins that are found between the thicker secondary veins (black arrows). Scale bar = 2 cm.



a, The leaf stalks of *Uncaria longiflora* var. *pteropoda* are winged as they are lined with an extension of the leaf blade base on two sides (arrowed). In between the leaf stalks, a prominent stipule is present. b, Axillary hooks are found at the nodes, in pairs or singly. Scale bars = 1 cm (a), 2 cm (b).

The bilobed leaf blades of *Bauhinia semibifida* var. *semibifida*. Scale bar = 5 cm.

15. Leaf blades often tri-lobed; leaf blade margins minutely toothed ..... *Phytocrene bracteata*
15. Leaf blades unlobed; leaf blade margins entire 16

16. Leaf blades 3-veined; leaf stalks swollen at both ends .... *Fibraurea tinctoria*
16. Leaf blades with veins on two sides of the midrib like barbs of a feather or with veins arising from one point; leaf stalks of equal thickness throughout 17

17. Stems swollen at the nodes; leaf blades with veins arising from one point.....18
17. Stems evenly thick; leaf blades with veins on two sides of the midrib like barbs of a feather 20

18. Leaf stalks and stems usually with reddish-brown patches; leaf blades relatively thick and fleshy..... ..... *Piper* cf. *flavimarginatum*
18. Leaf stalks and stems without any colour patches; leaf blades papery to leathery.....19

19. Swollen nodes much enlarged; leaf blade base sometimes with an ear-like appendage ..... *Piper macropiper*
19. Swollen nodes indistinctly enlarged; leaf blade base unequal or heart-shaped, never with ear-like appendages .... *Piper caninum*

20. Plants have whitish sap; stipules present 21
20. Plants have colourless sap; stipules absent 25

21. Leaf blades very rough; figs with white spots on the surface .. .. *Ficus heteropleura*
21. Leaf blades relatively smooth; figs without white spots on the surface 22

A young *Phytocrene bracteata* plant with both tri-lobed and unlobed leaves. Scale bar = 5 cm.

The green fleshly leaf stalks of *Piper* cf. *flavimarginatum* usually have many reddish-brown patches. Scale bar = 1 cm.

A young *Fibraurea tinctoria* plant. There are three distinct veins that radiate from leaf blade base (arrowed). Scale bar = 5 cm.

Leaf blade base of *Piper macropiper*, particularly of the mature leaves, is sometimes equipped with an ear-like structure. Scale bar = 1 cm.

22. Leafy twigs very densely covered with long, whitish hairs; young leaf blades arrow-shaped.....*Ficus sagittata*
22. Leafy twigs less hairy to hairless; young leaf blades egg-shaped, oblong, elliptic, lance-shaped or drop-shaped 23

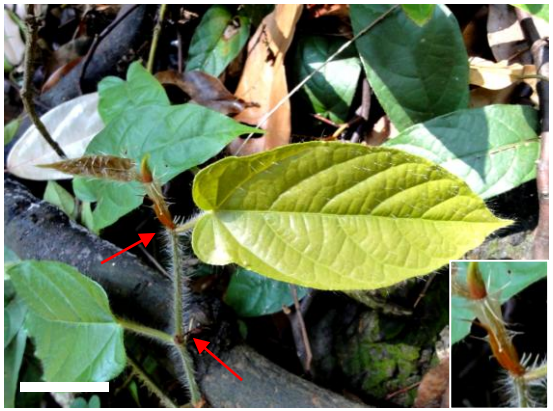
23. Leafy twigs hollow; leaf blades except the veins hairless .... *Ficus apiocarpa*
23. Leafy twigs solid; leaf blades and veins hairy 24

24. Leaves more or less lie in the same plane; leaf blade margins fringed with appressed hairs .....*Ficus recurva* var. *ribesoides*
24. Leaves do not lie in the same plane; leaf blade margins fringed with spreading hairs..... *Ficus excavata*

25. Bark fibrous; leaves covered with straight hairs..... .....*Enkleia malaccensis*
25. Bark not fibrous; leaves covered with star-shaped hairs but soon become hairless with age.....26

26. Leaf blades with veins indistinct beneath; leaves egg- to lance-shaped, and 1.6–5.5 by 1–2 cm.. *Erycibe leucoxyloides*
26. Leaf blades with veins relatively distinct beneath; leaves egg-shaped, elliptic or drop-shaped-oblong, and 5–18 by 2.5–8.5 cm.....*Erycibe tomentosa*

The syconia of *Ficus heteropleura* are covered with white spots. Scale bar = 1 cm.



Various plant parts of *Ficus sagittata*, including the leaf blade, leafy twigs, and leaf stalks are densely covered with long whitish hairs. Brown stipules are present at the stem's nodes (arrowed). Inset is close up of the brown stipule. Scale bar = 2 cm.

Fibres can be observed from the bark of a broken twig of *Enkleia malaccensis*. Scale bar = 2 mm.

Secondary veins are indistinct on the leaf blade's lower surface in *Erycibe leucoxyloides*. Scale bar = 1 cm.

Key to the Common Trees and Shrubs of the Nee Soon Swamp Forest

Please note that if your specimen does not match any of the leads in the key, then it may not be a species identified by the key.

1. Plants with simple leaves 2
1. Plants with trifoliate, pinnate or bipinnate leaves 59

2. One leaf per node; sap colourless 3
2. One leaf per node; sap/dammar white or translucent yellow or red or light brown when fresh.....23
2. Two leaves per node; sap colourless.....15
2. Two leaves per node; sap white, light yellow or yellow or orange-green or pink or reddish or reddish brown and watery 35
2. Three to four leaves per node; white latex present ....*Alstonia angustifolia*

3. Stipules present; leaf blade margins entire 4
3. Stipules present; leaf blade margins toothed.....8
3. Stipules present; leaf blade margins entire to toothed 14
3. Stipules absent; leaf blade margins entire.....43
3. Stipules absent; leaf blade margins toothed.....54

4. Plants unbranched or sparingly branched; leaves arranged in a terminal rosette to collect leaf litter ....*Agrostistachys indica*
4. Plants very much branched; leaves more or less arranged in the same planes or loosely so that they do not accumulate leaf litter.....5

5. Young branches and twigs densely covered with prominent reddish brown hairs; leaves withering red ....*Elaeocarpus ferrugineus*
5. Young branches and twigs slightly hairy to hairless; leaves withering brown.....6

Prunus polystachya has one leaf per node. Its leaves have alternate arrangement and are lying in the same plane. Scale bar = 10 cm.

Macaranga gigantea has one leaf per node. Its leaves are spirally arranged. Scale bar = 20 cm.

Cratoxylum cochinchinense has two leaves per node. Its leaves lie in the same plane. Scale bar = 2 cm.

Alstonia angustifolia, has three to four leaves per node. Scale bar = 5 cm.

6. Leaf blade base usually with a pair of glands that each smells of almonds upon crushing; leaf stalks not swollen at both ends ..... *Prunus polystachya*
6. Leaf blades without basal glands; leaf stalks prominently swollen at both ends 7

7. Leaf blade tertiary veins parallel and widely spaced; leaves curl up upon drying ..... *Bhesa paniculata*
7. Leaf blade tertiary veins reticulate and dense; leaves more or less remain flat upon drying ..... *Bhesa robusta*

8. Leaf blades with an asymmetrical base; twigs and stipules densely hairy ..... *Gironniera nervosa*
8. Leaf blades with a symmetrical base; twigs and stipules sparsely hairy or hairless 9

9. Branches thorny proximally; young leaves red to brown ..... *Flacourtia rukam*
9. Branches unarmed throughout; young leaves green 10

10. Leaf stalks with a minute pair of glands on the upper surface near the leaf blade base, not swollen ..... *Claoxylon indicum*
10. Leaf stalks glandless, swollen at both ends 11

12. Leaf stalks usually more than 3 cm long; leaf blades with nectary glands on the lower surface ..... *Baccaurea bracteata*
12. Leaf stalks usually less than 1.5 cm long; leaf blades glandless 13

13. Lower surface of leaf blades whitish; stipules crescent-shaped ..... *Aporosa falcifera*
13. Lower surface of leaf blades green; stipules lance-shaped ..... *Aporosa frutescens*

Leaves of *Agrostistachys indica* are loosely arranged in a terminal rosette that traps leaf litter. Scale bar = 20 cm.

Terminal bud of *Elaeocarpus ferrugineus.* The leaf stalks are covered with prominent reddish brown hairs. Scale bar = 1 cm.

A pair of glands is usually present at the leaf blade base of *Prunus polystachya* (arrowed). Scale bar = 1 cm.

Leaf stalks of *Bhesa paniculata* are swollen (arrowed) at both ends. Scale bar = 1 cm.

14. Stipules relatively large and persistent; the last pair of secondary veins arising from the midrib of the leaf blade..... ..... *Elaeocarpus stipularis*
14. Stipules small and dropping off early; the last pair of the secondary veins arising from the leaf blade base..... .....*Osmelia philippina*

15. Leaf blades palmately veined.....*Clerodendrum villosum*
15. Leaf blades penninerved 16
15. Leaf blades trinerved 21

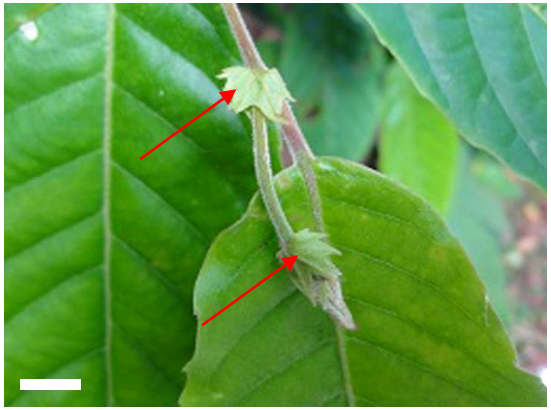
16. Stipules interpetiolar; each leaf pair is at right angles to the previous and subsequent pairs 17
16. Stipules noticeable at twig apices or absent; leaf pairs more or less in the same plane 18

17. Leaf blade underside silvery and shiny; each leaf pair consisting of equal sized leaves ..... *Timonius wallichianus*
17. Leaf blade underside green and relatively dull; each leaf pair consisting of a large and small leaf..... ..... *Porterandia anisophylla*

18. Tree bark orangy and papery flaky; leaf veins unite near leaf blade margins to form two intramarginal veins ....*Syzygium papillosum*
18. Tree bark pale brown, pinkish buff, grey, dark grey or blackish and smooth to finely cracked or transversely fissured; leaf veins never unite or loop near leaf blade margins 19

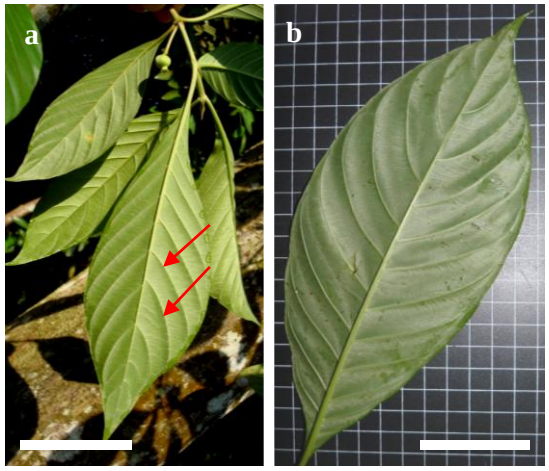
19. Twigs are solid; stipules absent.....*Litsea ferruginea*
19. Twigs are hollow; stipules present 20

20. Lower surface of leaf blades reddish brown hairy; tree bark finely cracked..... *Pellacalyx axillaris*
20. Lower surface of leaf blades hairless; tree bark transversely fissured.....*Gynotroches axillaris*

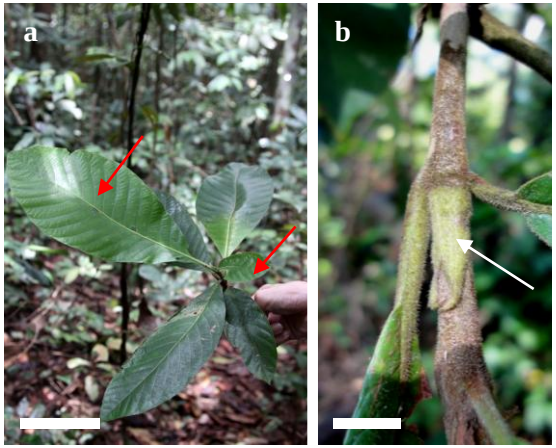


Stipules (arrowed) of *Elaeocarpus stipularis* are comparatively large and prominent. Scale bar = 1 cm.

Clerodendrum villosum has palmate-veined leaves where the main veins are all radiating from the leaf blade base (arrowed). Scale bar = 5 cm.



Timonius wallichianus has penninerved leaf blades where the secondary veins (arrowed) arising from the midrib are more of less parallel to each other, like a feather. The lower surface of the leaf has a characteristic silver sheen that reflects light. Scale bars = 5 cm.



a, *Porterandia anisophylla* has an opposite leaf arrangement. Each opposite leaf pair is at right angles to the previous and subsequent pairs (decussate). In addition, each leaf pair is made up of a larger and a smaller leaf (red arrows). b, Stipules are present in between the opposite leaf pairs (white arrow). Scale bars = 10 cm (a), 2 cm (b).

21. Young leaves reddish; crushed leaf blades and bark smell of cinnamon..... *Cinnamomum iners*
21. Young leaves green; crushed leaf blades and bark odourless 22

22. Leaf blade underside green; prominent nodal scars between each leaf pair..... *Pternandra echinata*
22. Leaf blade underside almost always whitish; nodal scars absent between each leaf pair ..... *Rhodamnia cinerea*

23. Plants with terminalia-branching 24
23. Plants with branches and branchlets that are more or less irregularly branched, without noticeable form.....26

24. Fresh sap whitish, remaining white upon drying; young leaves reddish and dried leaves tinged red..... .....*Palaquium xanthochymum*
24. Fresh sap light brown, turning black upon drying; young leaves green and dried leaves brown or brownish green 25

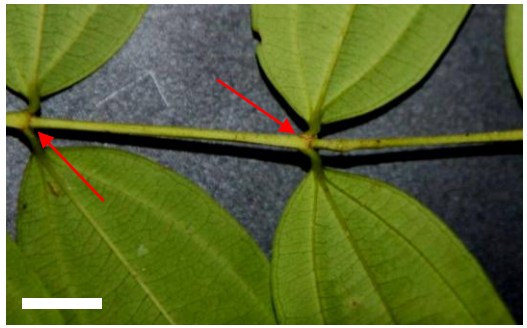
25. Leaf blade base with ear-like lobes; leaf stalks often less than 1 cm long.....*Campnosperma squamatum*
25. Leaf blade base flat, without lobes; leaf stalks usually more than 2 cm long..... *Gluta wallichii*

26. Leaf stalks attached near to the center of the leaf blade underside (peltate).....27
26. Leaf stalks attached to the leaf blade base 28

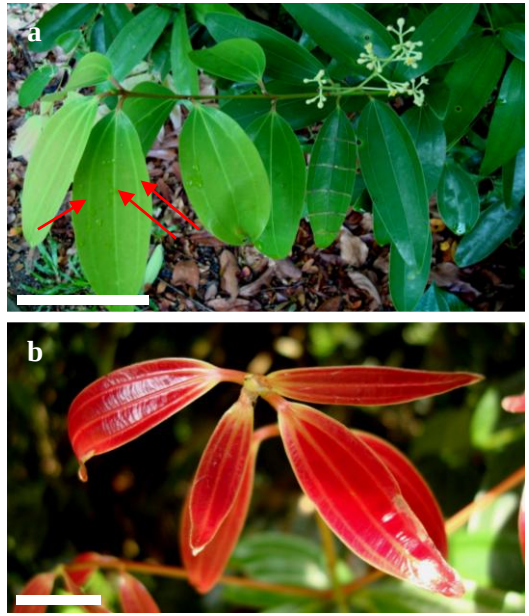
27. Leaf blades broadly egg-shaped, 20–80 cm long and wide; stipules prominent and persistent.....*Macaranga gigantea*
27. Leaf blades egg-oblong-shaped, 22–45 by 16–34 cm; stipules curved back towards the stem, either falling off early or sometimes semi-persistent..... *Macaranga recurvata*

The bright orange tree bark of *Syzygium papillosum* is very distinctive in field. Inset shows a close up of the papery flaky bark. Scale bar = 10 cm.

Shorea platycarpa has coarsely fissured bark. Scale bar = 10 cm.



A nodal scar (arrowed) is present at each node of *Pternandra echinata*. Scale bar = 1 cm.



a, *Cinnamomum iners* has trinverved leaf blades where three distinct veins (arrowed) arise near leaf blade base and reach the blade tip. b, Its young leaves are bright red in colour and gradually turn greenish. Scale bars = 5 cm (a), 2 cm (b).

28. Circular stipular scars present and prominent; sap whitish ..29
28. Stipular scars absent or short and less conspicuous if present; sap/dammar cream or yellow or yellow to colourless or red ... .32

29. Leaf blade underside distinctly checkered, formed by many veinlets joined together; tiny flowers and fruits enclosed within syconia (figs) 30
29. Leaf blade underside not checkered, only the main veins distinct; flowers and fruits exposed to the outer environment 31

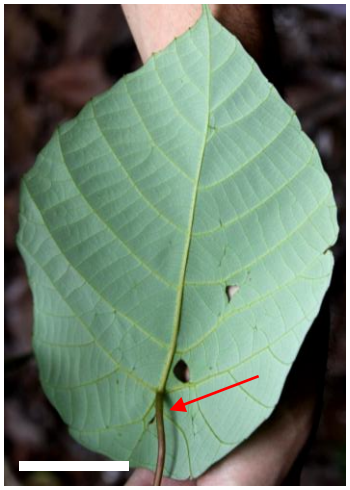
30. Leaf blade underside whitish; leaf blades slightly rough to slightly soft .....*Ficus grossularioides*
30. Lower surface of leaf blades green; leaf blades very rough and stiff .....*Ficus heteropleura*

31. Leaf blade underside densely hairy; leaf blade margins toothed .....*Artocarpus elasticus*
31. Leaf blade underside sparsely fine, white-hairy; leaf blade margins entire .....*Artocarpus kemando*

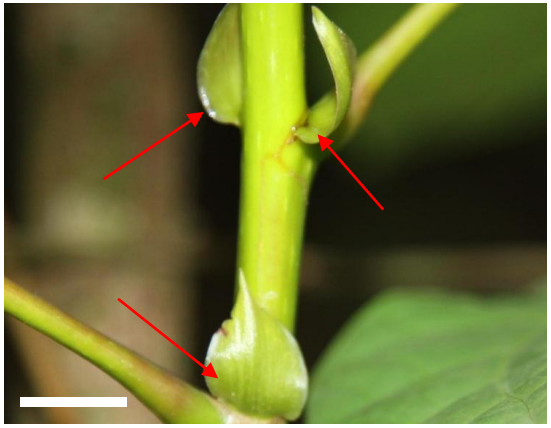
32. Lower surface of leaf blades whitish green; sap red..... .....*Knema conferta*
32. Lower surface of leaf blades green; dammar cream or yellow or yellow to colourless or red.....33

33. Leaf glands present on secondary veins near leaf blade margins; tertiary leaf veins do not form prominent pattern .... *Vatica pauciflora*
33. Leaf glands absent; tertiary leaf veins are almost parallel to each other and appear ladder-like 34

a, Trees showing a terminalia-branching pattern develop a horizontal shoot consisting of a series of consecutive branches, each of which stops growing after some time to allow the next to continue. The three connected and curved arrows illustrate the three consecutive branches of the tree. b, The tip of a one such branch, represented by that of *Campnosperma squamatum* (arrowed), has leaves at its tip. Scale bars = 50 cm (a), 10 cm (b).



The leaf stalk (arrowed) of *Macaranga recurvata* is peltate, referring to its insertion near the centre of a leaf blade. Scale bar = 5 cm.



Stipules (arrowed) of *Macaranga recurvata* are conspicuous as they are curved towards the stems. Scale bar = 1 cm.

34. Twigs roundish in cross section and ridged; leaf blade margins do not curve downwards towards the leaf underside ..... *Shorea platycarpa*
34. Twigs more or less squarish in cross section; leaf blade margins curve downwards towards the leaf underside (revolute)..... *Shorea parvifolia*

35. Resin ducts present and visible in leaf blades.....36
35. Resin ducts absent in leaf blades 38

36. Leaf pouches present at the leaf stalk base .... *Garcinia maingayi* var. *stylosa*
36. Leaf pouches absent.....37

37. Dried leaves dark green; resin ducts very fine and dark green in dried leaves ..... *Garcinia parvifolia*
37. Dried leaves pale green; resin ducts prominent and red in dried leaves ..... *Garcinia rostrata*

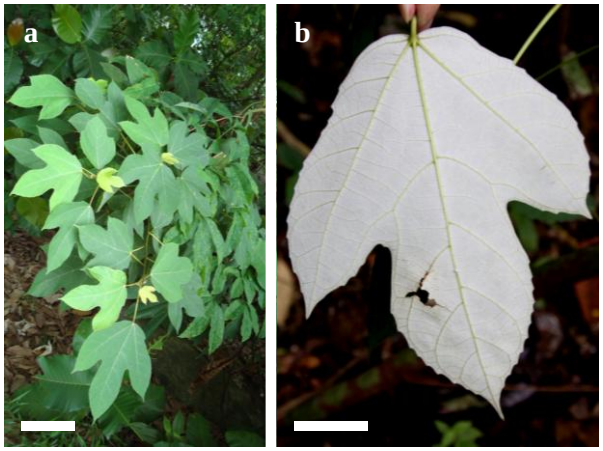
38. Leaf blade secondary veins more than 40 pairs and very closely spaced to each other; midribs grooved on the leaf blade underside ..... *Calophyllum pulcherrimum*
38. Leaf blade secondary veins less than 25 pairs and well-spaced from each other; midribs more or less raised on the leaf blade underside 39

39. Leaf blade underside with tiny black dots; saplings with thorny stems.....40
39. Leaf blade underside not dotted; stems of saplings do not have thorns.....42

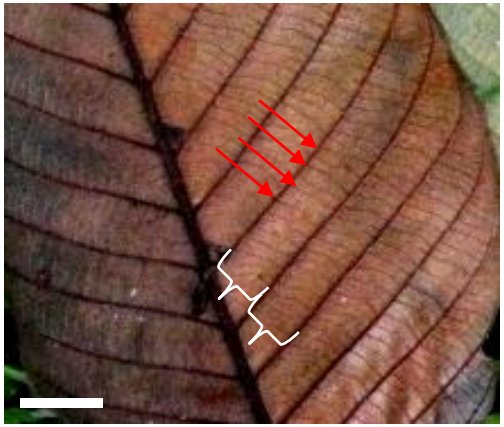
40. Tree bark light buff to pale brownish-yellow and flakes away in long strips; sap orange-green in colour..... ..... *Cratoxylum cochinchinense*
40. Tree bark warm or ashen or greyish brown, fissured and papery scaly; sap yellow or reddish brown.....41

Circular stipular scars (arrowed) of *Ficus grossularioides*, a prominent feature of plant members from the family Moraceae. Scale bar = 1 cm.

The finer veins of a *Ficus heteropleura* leaf are variously united, giving a "checkered" appearance which is apparent on the lower surface. Scale bar = 2 cm.



The upper surface of the leaf blade of *Ficus grossularioides* is green (a) but whitish beneath (b). Scale bars = 10 cm (a), 5 cm (b).



Close up of tertiary leaf veins (arrowed) of *Shorea platycarpa* on leaf blade underside. The veins are almost parallel to each other, giving a ladder-like appearance (bracketed). Scale bar = 1 cm.

41. Leaf veins distinct on the lower surface of leaf blades; young leaves reddish pink.....*Cratoxylum formosum*
41. Leaf veins rather indistinct on the lower surface of leaf blades; young leaves greenish..... *Cratoxylum arborescens*

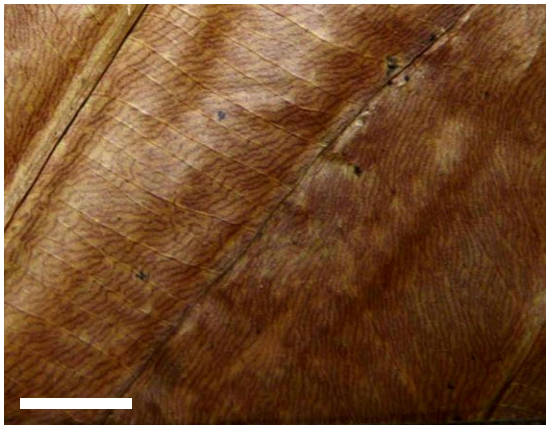
42. Domatia present at axils of leaf secondary veins; sap pink or reddish..... *Canthium glabrum*
42. Domatia absent; sap whitish .....*Kopsia singapurensis*

43. Plants with two leaf sizes, the bigger leaves have rhomboid leaf blades and the smaller leaves have lance-shaped leaf blades; leaves sessile..... .....*Anisophyllea disticha*
43. Plants with one leaf size, leaf blades oblong, elliptic, oval, lance- or egg-shaped; leaves stalked.....44

44. Leaf blade secondary veins with prominent intramarginal loops throughout; trunk bark distinctly black 45
44. Leaf blade secondary veins with intramarginal loops only in the apical half; trunk bark grey to brown.....46
44. Leaf blade secondary veins separate and do not form loops; trunk bark brown, reddish brown, dark grey or grey to brown 47

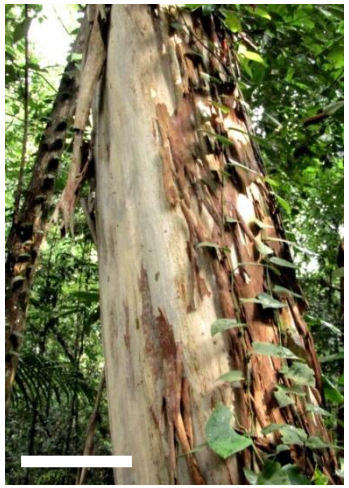
45. Leaf blades usually narrow oblong to elliptic and 6.5–15 by 2.3–4.3 cm; both leaf blades surfaces hairless ....*Diospyros coriacea*
45. Leaf blades oblong to elliptic with pointed apices and 10.2–33 by 3.8–13 cm; leaf blade surfaces smooth and hairless to velvety.....*Diospyros oblonga*
45. Leaf blades oblong oval and 7.5–18 by 2–10 cm; leaf blade surfaces smooth and hairless.....*Diospyros styraciformis*

46. Axillary buds prominent, often up to 5 mm long; leaf blade tips round .....*Xanthophyllum vitellinum*
46. Axillary buds relatively indistinct, about 1 mm long; leaf blade tips pointed.....*Xanthophyllum flavescens*



Close up of a dried leaf of *Garcinia rostrata* on the lower surface reveals numerous red resin ducts that cut across the secondary veins. Scale bar = 1 cm.

White latex oozes out from a leaf scar of *Kopsia singapurensis*. Scale bar = 2 cm.



Smooth bark of *Cratoxylum cochinchinense* peels away in long strips. Scale bar = 10 cm.

Anisophyllea disticha has leaves of two sizes. The much smaller leaves are arrowed. Scale bar = 2 cm.

47. Leaf stalks much elongated, often up to 15 cm or more; leave stalks more or less distinctly swollen at both ends.....48
47. Leaf stalks are shorter, not more than 3 cm; leaves stalks are not swollen at both ends.....49

48. Lower surface of leaves densely softly hairy; leaves of adult and young plants similar in shape.....*Sterculia macrophylla*
48. Lower surface of leaves hairless; leaves of adult plant are not lobed whereas young plants have lobed-leaves ....*Scaphium macropodum*

49. Young branches covered with star-shaped hairs; both surfaces of the leaf blades, especially young leaves, with star-shaped hairs then soon become hairless..... .....*Erycibe tomentosa*
49. Young branches hairy or hairless; leaf blades hairy or hairless (but hairs never star-shaped).....50

50. Leaf blades raised above the veins (bullate); leaf stalks slightly swollen proximally..... *Lavallea ceylanica*
50. Leaf blades more or less flat; leaf stalks not swollen proximally.....51

51. Plants with terminalia-branching; twigs stout and hairless..... .....*Beilschmiedia kunstleri*
51. Plants variously branched but not with terminalia-branching; twigs slender and reddish brown- or brown-hairy 52

52. Tertiary veins distinct on the leaf blade underside but indistinct above; leaf blades faintly to distinctly whitish and velvety hairy or hairless on the underside..... .....*Cryptocarya ferrea*
52. Tertiary veins indistinct on both surfaces of the leaf blades; leaf blades green and reddish-brown hairy on the underside... .....*Litsea erectinervia*

The inner trunk bark of *Diospyros styraciformis* is black, characteristic of the genus. The inner bark colour is readily seen upon gently scraping off the thin outer bark. Scale bar = 5 cm.

Axillary buds (arrowed) of *Xanthophyllum vitellinum* are relatively large and prominent. Scale bar = 2 cm.

Close-up showing a leaf stalk of *Lavallea ceylanica* with a slightly swollen proximal end (arrowed). Scale bar = 5 mm.

The much elongated leaf stalks of *Sterculia macrophylla* are swollen (arrowed) at both ends. Scale bar = 10 cm.

53. Leaves are very long, up to 6 m long; stems are thorny .... *Pandanus atrocarpus*
53. Leaves have shorter length, not more than 50 cm; stems are unarmed 54

54. Plants develop prominent prop and stilt roots; young leaves are reddish..... *Dillenia reticulata*
54. Plants develop buttresses or do not have any root adaptation; young leaves are green.....55

55. Leaf blades raised above the veins (bullate); twigs develop in a zigzag pattern ..... *Symplocos fasciculata*
55. Leaf blades more or less flat; twigs more or less straight....56

56. Plants with prominent, droopy branches; twigs squarish in cross section..... *Eurya acuminata*
56. Plants with more or less upright branches; twigs roundish in cross section.....57

57. Leaf blades usually with an asymmetrical base; leaf stalks relatively slender..... *Vernonia arborea*
57. Leaf blades with a symmetrical base; leaf stalks much thickened..... *Meliosma simplicifolia* ssp. *fruticosa*

58. Stems are underground and the plants appear stemless; leaf stalks bear rows of well-spaced white spines..... ..... *Eleiodoxa conferta*
58. Plants with prominent stems; leaf stalks unarmed 59

59. Plants with an unbranched trunk; leaflets jagged and fish tail-like (rhomboid)..... *Caryota mitis*
59. Plants with a variably branched trunk; leaflets otherwise....60

The slow-growing *Pandanus atrocarpus* is restricted to swampy areas and its tough leathery leaves are up to several meters long. Older individuals develop tall stems (arrowed).

Symplocos fasciculata has bullate leaf blades with a puckering upwards of the leaf blade tissues between the larger veins. Scale bar = 5 cm.

Dillenia reticulata develops prop roots (arrowed) on both wet and dry ground. Scale bar = 10 cm.

Leaf blade margins of *Meliosma simplicifolia* ssp. *fruticosa* are distinctly toothed. Scale bar = 2 cm.

60. Leaves bipinnate or occasionally pinnate; two leaves per node.....*Radermachera pinnata*
60. Leaves trifoliate; one leaf per node.....61
60. Leaves bipinnate; one leaf per node.....62
60. Leaves pinnate; one leaf per node.....63

61. Leaflets more or less distinctly trinerved; twigs and leaf stalks, especially young parts, densely hairy ....*Agelaea borneensis*
61. Leaflets distinctly penninerved; twigs and leaf stalks hairy or rather hairless.....*Agelaea macrophylla*

62. Branches with prominent nectary glands; secondary leaflets oblong .....*Parkia speciosa*
62. Branches do not have nectary glands; secondary leaflets rhomboid.....*Archidendron clypearia*

63. Leaflet blade base unsymmetrical; plants resinous.....64
63. Leaflet blade base symmetrical; plants non-resinous 65

64. Leaves hairy and reddish when young; awl-like stipules present.....*Canarium pilosum*
64. Leaves hairless and green when young; stipules absent ....*Santiria rubiginosa*

65. Leaflets distinctly alternate; twigs sometimes with hooks..... .....*Dalbergia pseudo-sissoo*
65. Leaflets opposite or sub-opposite; twigs without hooks.....66

66. Trunk bark mottled orange and white; leaf blade margins prominently toothed.....*Pometia pinnata*
66. Trunk bark brownish; leaf blade margins entire 67

67. Mature branches lenticellate; pellucid dots more or less visible on the upper side of the leaf blades 68
67. Mature branches more or less smooth, without distinct lenticels; pellucid dots absent on the upper side of the leaf blades 69

The large leaf stalks of *Eleiodoxa conferta* bear fan-shaped, white spines (arrowed) at regular intervals. Scale bar = 10 cm.

A single bipinnate leaf of *Radermachera pinnata*. Scale bar = 20 cm.

A single bipinnate leaf of *Caryota mitis*. Its leaflets are jagged at the tips and rhomboid. Scale bar = 20 cm.

Branches of *Parkia speciosa* are dotted with numerous yellowish nectary glands, especially in younger branches. The base of the leaf stalk is distinctly swollen (red arrow). A tiny axillary bud is present between the leaf stalk base and the branch (white arrow). Scale bar = 2 cm.

68. Branches hairless; leaf blade secondary veins curved near the leaf blade margins and not distinctly looped ....*Connarus grandis*
68. Branches, at least the young parts, densely reddish-brown hairy; leaf blade secondary veins often distinctly looped..... .....*Connarus semidecandrus*

69. Leaf with up to 25 pairs of leaflets.....*Rourea mimosoides*
69. Leaf with up to 9 pairs of leaflets ..... *Rourea minor*

Branches of *Archidendron clypearia* are strongly angled with longitudinal ridges (arrowed). Scale bar = 5 cm.

The awl-like stipules (arrowed) of *Canarium pilosum* are long and slender. They come in pairs. Scale bar = 2 cm.

FORMAT OF THE SPECIES DESCRIPTIONS OF THE 100 COMMON VASCULAR PLANTS OF THE NEE SOON SWAMP FOREST, SINGAPORE

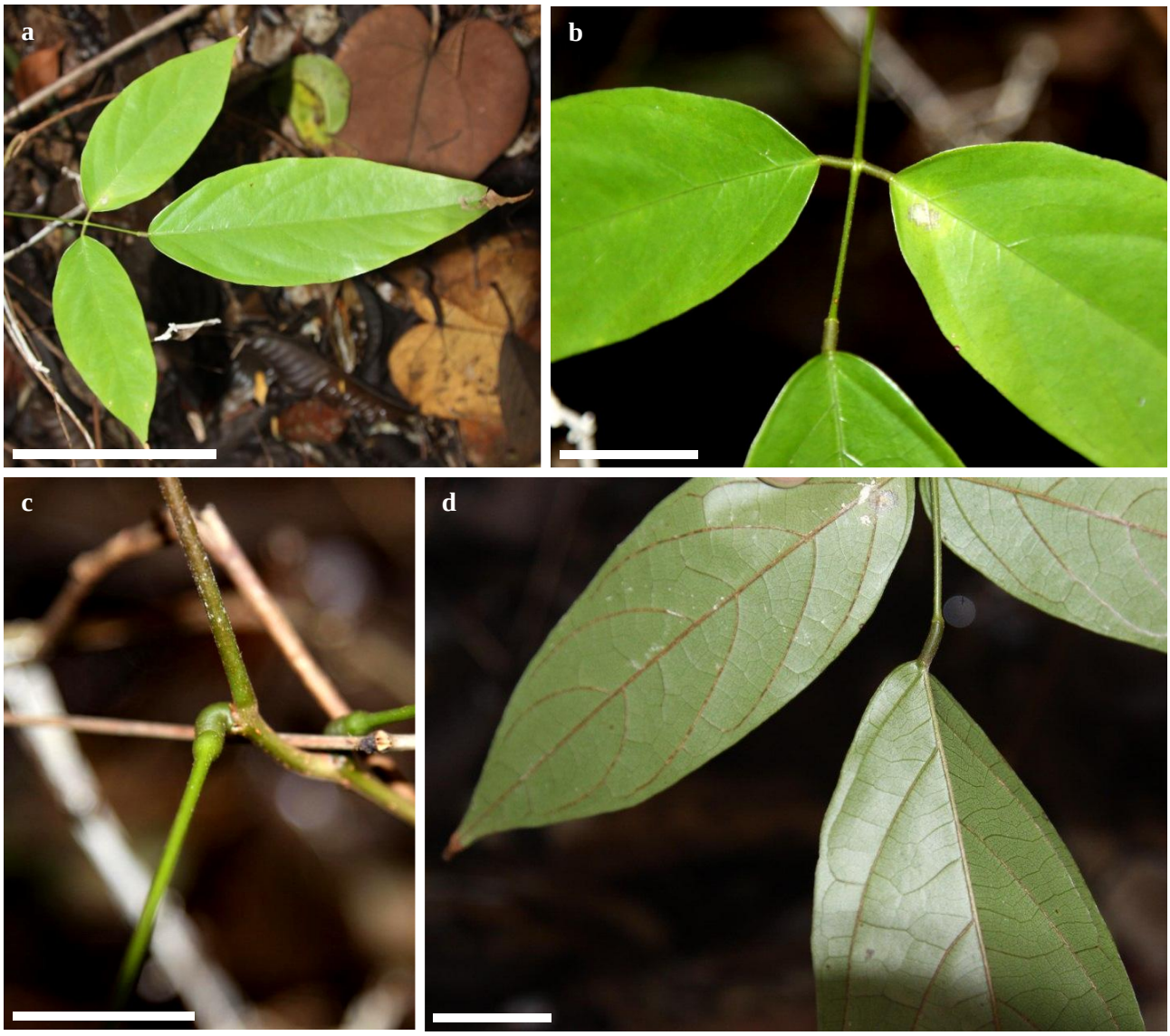
The format of the species descriptions includes:

1. **Scientific Name**: This refers to the name of the plant according to the *International Code of Botanical Nomenclature*, i.e., its "official name". It also includes the abbreviations of the names of the author(s) who contributed to its naming, e.g., for the name *Agelaea borneensis* (Hook.f.) Merr., "*Agelaea borneensis*" is the species name, and "Hook.f." and "Merr." are the authors who participated in naming this species. Author names are included for greater accuracy since sometimes the same species name may have been used by other authors so such names can only be distinguished by author names. In general, we have strived to select the most up-to-date name from the latest taxonomic revisions *whose decisions on the names we agree with*. The latest revision may not necessarily be the best, so we may thus appear not to have the most up-to-date names for specific species for this reason. Nomenclature generally followed that of Chong, K. Y., H. T. W. Tan & R. T. Corlett, 2009. *A Checklist of the Total Vascular Plant Flora of Singapore: Native, Naturalised and Cultivated Species*. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore. 273 pp. Uploaded 12 Nov.2009, with some updates.
2. **Main Group Key that Applies**: This refers to the main group that the *Key to the Main Groups of the Common Vascular Plants of the Nee Soon Swamp Forest* has been classified species into: Trees and Shrubs, Climbers, Herbs, and Ferns and Lycophytes. For a plant species that belongs to more than one of these groups because some species may have more than one type of growth form, e.g., tree, shrub or climber, that species has also been included in all the the Trees and Shrubs Key and Climbers Key for the readers' convenience.
3. **Etymology**: This refers to the origin of the scientific name of the plant species. Knowing this will help readers remember the name of the species more easily. As the names are in Latin or Latinized, they can be quite incomprehensible without their etymology explained.
4. **Synonym(s)**: This refers to other scientific names that have been applied to the same species. The *International Code of Botanical Nomenclature* has rules on how to decide which name takes precedence, but a general rule of thumb is that the older the name, the more priority it has, with some exceptions. It is useful to know the synonyms since the older literature may refer to the species by the synonym(s). Plant species may have none, one or more synonyms.
5. **Common Name(s)**: These are the names used in everyday language in the four national languages of Singapore, where they apply. Most of the common names are in Malay, followed next by those in English, then Mandarin. They have been added to provide the reader with more context and greater accessibility.
6. **Common Family Name**: These are the names used in everyday language in the four national languages of Singapore, where they apply. Most of the common names are in Malay, followed next by those in English, then Mandarin. This has been added to provide the reader with more context and greater accessibility.
7. **Origin**: This refers to the natural distribution of the species. Almost all the 112 common species of the Nee Soon Swamp Forest are native to Singapore.
8. **Growth Form**: This refers to the habit of the plant, e.g., tree, shrub, climber or herb. Plant species may have more than one growth form, and if so, all the alternatives are indicated.

9. **Habitat**: This refers to the natural environment in which the species normally grows, e.g., primary or secondary forest, beach vegetation, peat swamp forest, freshwater swamp forest, etc. The current Singapore localities of the species are also indicated here.
10. **National Conservation Status**: This refers to how rare or common the plant species is, i.e., presumed nationally extinct, critically endangered, endangered, vulnerable, common, and cryptogenic (origin unknown). This is also mostly based on Chong et al. (2009; see S/No. 1 above) but updated where relevant.
11. **Foliage**: This refers to the leaf-related morphology of the plant. Although technical terms have been minimised, their use is sometimes required for brevity and convenience. Usually, where jargon has been utilised, a technical term's meaning has been included immediately before or after the word's use.
12. **Flowers**: This refers to the inflorescence (flowering shoot or flower clusters) and flowers of the plant species. Although technical terms have been minimised, their use is sometimes required for brevity and convenience. Usually, where jargon has been utilised, a technical term's meaning has been included immediately before or after the word's use.
13. **Fruits**: This refers to the fruits which are the ripened ovaries of the flowers. Although technical terms have been minimised, their use is sometimes required for brevity and convenience. Usually, where jargon has been utilised, a technical term's meaning has been included immediately before or after the word's use. For the ferns and lycophytes, this section has been renamed **Sori** or **Strobili**, which are the structures where the spore-bearing sacs (sporangia) are found for the ferns and lycophytes, respectively.
14. **Uses and Folklore**: This section provides the economic value or traditional uses of the plant species to provide extra perspective on the species.
15. **Reference**s: This provides a comprehensive listing of the literature upon which the species description was based. For most of the species, this would include most of the most recent literature, especially that from Singapore, Malaysia, and Southeast Asia, in particular.

Agelaea borneensis (Hook.f.) Merr.: a, spiral arrangement of leaves; b, close-up of trifoliate leaves with a slightly larger terminal leaflet; c, close-up showing its three main veins with the lateral veins arising from the midrib slightly above the leaf blade base; d, small, white flowers; e, red ripe fruit. Scale bars = 10 cm (a), 2 cm (b, c), 0.5 cm (d), 1 cm (e). (Photographs by: www.NatureLoveYou.sg [a–c] and Hugh Tan Tiang Wah [d, e]).

Scientific Name	*Agelaea borneensis* (Hook.f.) Merr.
Main Group Keys that Apply	Climbers; Trees and Shrubs
Etymology	Greek, *agelaeos*, part of a herd or common; Latin, *borneensis*, of Borneo, a reference to the origin of this plant species
Synonyms	*Agelaea vestita* Hook.f.; *Castanola villosa* Schellenb.; *Cnestis vestita* Wall. ex Hook.f.; *Erythrostigma villosum* Zoll.; *Hemiandrina borneensis* Hook.f.; *Hemiandrina villosa* Schellenb.
Common Names	Malay: akar rusa-rusa, akar telur bujok
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Sumatra, Peninsular Malaysia, Singapore, Central and West Java, Borneo, the Philippines
Growth Form	It is a liana or creeping shrub, and sometimes a treelet. Its branches are covered with dense, yellowish-grey hairs when young and become hairless over time.
Habitat	It grows in primary, secondary and swamp forests, often near streams and in limestone vegetation up to 700 m in altitude. It is known locally from Bukit Mandai, Bukit Timah, Changi, Kranji, MacRitchie Reservoir, Nee Soon Swamp Forest, Pulau Tekong, Upper Peirce Reservoir, and Upper Seletar Reservoir.
National Conservation Status	Vulnerable
Foliage	It has spirally arranged, stalked, and trifoliate leaves with leaf stalks that are swollen at base. The lateral leaflets are asymmetrical or elliptic and 5–13 by 2–6 cm. The terminal leaflet is elliptic to drop-shaped and slightly larger, being 7–20 by 3–10 cm. The papery to rather leathery leaflets sometimes have small protuberances on the leaf blades that are more or less densely covered with reddish-brown hairs, especially the lower surface. Its leaflets possess three main veins with the lateral veins arising from the midrib slightly above the leaf blade base and have 5–6 pairs of secondary veins.
Flowers	Its flowering shoots are found at the leaf axils, and 8–10 cm long. The white flowers are fragrant.
Fruits	Its fruits ripen red and are egg-shaped to flattened-round, and 0.7–1.2 cm wide. The fruit wall has prominent little protuberances on the surface and a velvety texture with longer stinging hairs. Its seeds are drop-shaped and smooth.
Uses and Folklore	The plant is used for making durable ropes to make rafts or bow-nets.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Goh, M. W. K. & H. T. W. Tan, 2000. *The Angiosperm Flora of Singapore*. *Connaraceae*. National University of Singapore, Singapore. 32 pp. Kochummen, K. M., 1978. Connaraceae. *Tree Flora of Malaya*, **3**: 47−52. Leenhouts, P. W., 1950. Connaraceae. *Flora Malesiana*, Series I, **5**: 495−541. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Agelaea macrophylla (Zoll.) Leenh.: a, leaf arrangement; b, close-up showing the slightly enlarged leaflet stalks; c, close-up of the base of the leaf stalk; d, close-up showing the undersides of the leaflets. Scale bars = 10 cm (a), 2 cm (b–d). (Photographs by: Koh Choon Yen).

Scientific Name	*Agelaea macrophylla* (Zoll.) Leenh.
Main Group Keys that Apply	Climbers; Trees and Shrubs
Etymology	Greek *agelaeos*, part of a herd or common; Greek *macro*, large; Greek *phyla*, leaved, referring to the large-sized leaves of the species
Synonyms	*Agelaea diepenhorstii* King; *Agelaea hullettii* King; *Agelaea sarawakensis* Merr.; *Agelaea wallichii* Hook.f.; *Castanola hullettii* (King) Schellenb.; *Castanola macrophylla* (Zoll.) Schellenb.; *Castanola wallichii* (Hook.f.) Schellenb.; *Connarus diepenhorstii* Miq.; *Erythrostigma macrophyllum* Zoll.; *Hemiandrina hullettii* Schellenb.; *Hemiandrina macrophylla* Schellenb.; *Hemiandrina sarawakensis* Schellenb.
Common Names	Malay: akar pinang ketul, akar pinang kutai
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Sumatra, Peninsular Malaysia, Singapore, Java, Lingga Archipelago, Bali, and Borneo
Growth Form	It is a liana, sometimes a creeping shrub or treelet. Its branches are up to 1 cm thick and hairless.
Habitat	It grows in primary, secondary and swamp forests, often near streams and in teak forest, marsh or limestone vegetation up to a 750-m altitude. It is known locally from Bukit Kallang, Changi, Chestnut Track, MacRitchie Reservoir, Mandai, Nee Soon Swamp Forest, Pulau Tekong, and Upper Peirce Reservoir.
National Conservation Status	Critically Endangered
Foliage	Its spirally arranged, stalked, trifoliate leaves are hairless to minutely reddish brown hairy. Leaf stalks are basally swollen. Its leaflets are oblong to lance-shaped, and 13–27 by 4–10 cm. Occasionally, the terminal leaflet is egg-shaped-lance-shaped, larger, and 18–30 by 6.5–12 cm. The leathery leaflets possess secondary veins that arise from midribs and are almost parallel to each other. Each leaflet blade has 5–10 pairs of veins.
Flowers	Its flowering shoots are found at the leaf axils and 2–4 cm long. The flowers carry a pungent smell.
Fruits	Its fruits are drop-shaped and 0.7–0.8 cm wide. The fruit wall is warty and densely covered with soft wooly hairs. Its seeds are drop-shaped to cylindrical, with rounded ends.
Uses and Folklore	The plant is used for making durable ropes to make rafts or bow-nets.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Goh, W. K. 1998. *The Connaraceae of Singapore*. Honours thesis, National University of Singapore. Kochummen, K. M., 1978. Connaraceae. *Tree Flora of Malaya*, **3**: 47−52. Leenhouts, P. W., 1950. Connaraceae. *Flora Malesiana*, Series I, **5**: 495−541. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Agrostistachys indica Dalzell: a, close-up of young capsules of the plant; b, close-up of the stem; c, habit of young trees; d, close-up of undersurface of a leaf; e, leaves arranged in rosette to collect leaf litter. Scale bars = 1 cm (a), 2 cm (b, d), 20 cm (c), 10 cm (e). (Photographs by: www.NatureLoveYou.sg [a, c–e] and Holly Joy Siow May-Ping [b]).

Scientific Name	*Agrostistachys indica* Dalzell
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Agrostistachys*, grass like spikes, referring to the plant's inflorescence; Latin *indica*, of India, referring to one country in its natural distribution
Synonyms	*Agrostistachys longifolia* (Müll.Arg.) Kurz var. *longifolia*; *Agrostistachys indica* Dalzell var. *genuina* Müll.Arg.; *Agrostistachys indica* Dalzell subsp. *longifolia* (Müll.Arg.) Pax & K.Hoffm.; *Agrostistachys indica* Dalzell var. *longifolia* Müll.Arg.; *Agrostistachys indica* Dalzell var. *maesoana* (Vidal) Pax & K.Hoffm.; *Agrostistachys indica* Dalzell var. *subintegra* Pax & K.Hoffm.; *Agrostistachys maesoana* Vidal; *Agrostistachys longifolia* (Müll.Arg.) Kurz; *Heterocalyx laoticus* Gagnep.
Common Names	English: Bornean jenjulung, leaf litter plant; Malay : jenjulung
Scientific Family Name	Euphorbiaceae
Common Family Name	rubber tree family
Origin	South India, Sri Lanka, Sumatra, Peninsular Thailand, Peninsular Malaysia, Singapore, Borneo, the Philippines, and New Guinea
Growth Form	It is a small-sized bisexual treelet or tree without latex (unlike most other Euphorbiaceae members), up to 9 m tall. Its trunk is not or rarely branched. The spiral leaves are more or less arranged in a terminal cluster to collect falling leaf litter. Sometimes, adventitious roots develop from the stem where the leaves are inserted to absorb nutrients from the humus derived from the rotting leaves. Its buds and young twigs are coated with resin.
Habitat	It grows in lowland and montane forests up to a 1,050-m altitude. It occurs locally in the Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Common
Foliage	Its spirally arranged, shortly stalked leaves have thickly leathery leaf blades that are narrow drop-shaped, and 30–66 by 5–10 cm. The leaves are yellowish-orange when young and gradually become green over time. The leaf stalks have narrow wings on both sides. Stipules are present but inconspicuous.
Flowers	Its erect flowering spikes are orange, and 10–50 cm long. Its white flowers are either solitary or in small groups along the spikes.
Fruits	Its orange fruits are deeply tri-lobed capsules, oblong, and 1.3–1.9 cm wide.
Uses and Folklore	Its resin was used to coat the sheaths and handles of daggers.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Euphorbiaceae. *Tree Flora of Malaya*, **2**: 34−136.

Alstonia angustifolia Wall. ex A.DC.: a, close-up of a young stem. The nodal scars are indicated by the arrows. b, close-up of the lower surface of a leaf with its parallel secondary veins; c, three leaves per node; d, wounded leaf with white sap; e, red young leaves; f, longitudinal section of its white flower. Scale bars = 1 cm (a, f), 2 cm (b, d, e), 5 cm (c). (Photographs by: Tan Siu Yueh [a–d], www.florasingapura.com [e], and Hugh Tan Tiang Wah [f]).

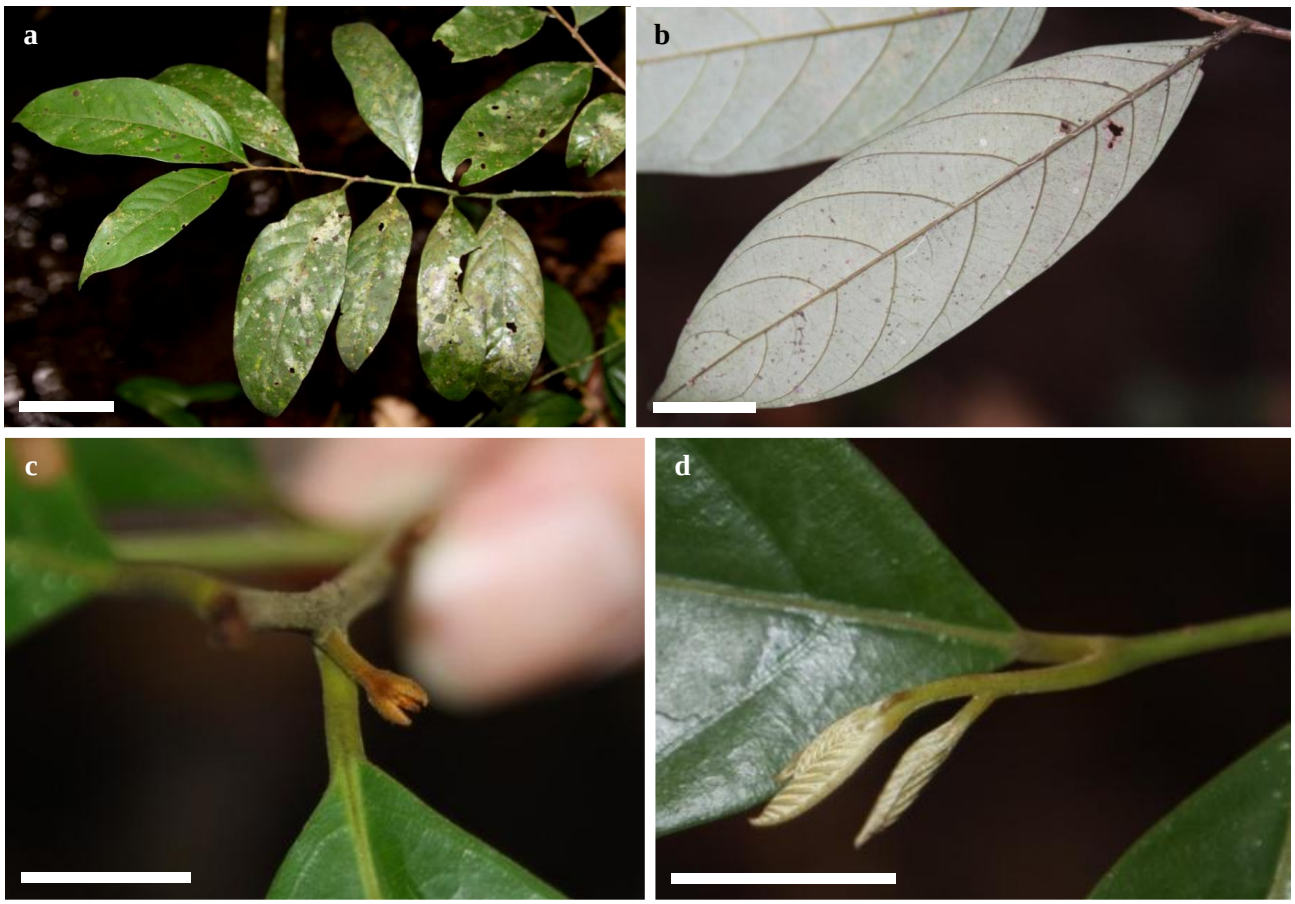
Scientific Name	*Alstonia angustifolia* Wall. ex A.DC.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Alstonia*, commemorates Dr. Charles Alston (1685–1760), a professor of botany at Edinburgh University; Latin *angustifolia*, narrow leaves, a reference to the foliage of the plant
Synonyms	*Alstonia angustifolia* Wall. ex A.DC. var. *elliptica* King & Gamble; *Alstonia angustifolia* Wall. ex A.DC. var. *latifolia* King & Gamble; *Alstonia beccarii* (Benth.) Pichon; *Alstonia latifolia* (King & Gamble) Ridl.; *Amblyocalyx beccarii* Benth.
Common Names	English: red-leaved pulai; Malay: akar lumut, pulai
Scientific Family Name	Apocynaceae
Common Family Name	periwinkle family
Origin	Sumatra, Peninsular Malaysia, Singapore, Bangka Island, Borneo, and Sulawesi
Growth Form	It is a slender tree up to 46 m tall, with a rather conical crown. Its bark is greyish-yellow to greyish-brown. This species resembles the tembusu (*Fagraea fragrans*), but the leaves wither red and not yellow. Milky sap is present and can be seen from cut surfaces.
Habitat	It grows in hill, peat swamp, and primary forests, on granitic or sandy soils up to 1,700 m in altitude. It is known locally from Nee Soon Swamp Forest, Old Upper Thomson Road, and Pulau Ubin.
National Conservation Status	Common
Foliage	Its 3- or 4-whorled, stalked leaves have papery or thinly leathery leaf blades that are narrowly elliptic-drop-shaped, and 4–18 by 1.5–7 cm, with rather long tips. Its secondary leaf blade veins are parallel to each other.
Flowers	Its fragrant flowers are white, cream, pale yellow or pink, and 3.8 mm wide, with green sepals. They are found in many-flowered and 3–9 cm-long clusters.
Fruits	Its fruits occur as a pair of finely-haired pods, are 20–71 by 0.2–0.6 cm, and contain many seeds. Its seeds are finely hairy, elliptic to oblong, 4–8.6 by 1.2–2 mm, and pointed at one end.
Uses and Folklore	The hard wood is used in general construction. The twigs are believed to have magical properties and are used to warm and rid one's body of diseases associated with the bones. Remittent fever can be treated by applying the heated leaves on the spleen.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Middleton, D. J., 2007. Apocynaceae (subfamilies Rauvolfioideae and Apocynoideae). *Flora Malesiana*, Series I, **18**: 1–474. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Angiopteris evecta (G.Forst.) Hoffm.: a, a single young, bipinnate leaf; b, close-up of fertile secondary leaflets. The brown, spore-bearing sacs (sporangia) are borne near leaflet blade margin. c, close-up of basal part of the fern where the green leaf stalks with whitish streaks arise. The brown stipules are indicated by the red arrows. d, close-up of the clusters of sporangia; e, close-up of its fiddlehead (young leaf). Scale bars = 10 cm (a), 2 cm (b), 5 cm (c), 10 mm (d), 2.5 cm (e). (Photographs by: Koh Choon Yen [a–c] and Hugh Tan Tiang Wah [d, e]).

Scientific Name	*Angiopteris evecta* (G.Forst.) Hoffm.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Angiopteris*, derived *angion*, vessel and *pteris*, a fern, referring to the shape of the sporangia; Latin *evecta*, means carried or moved forward
Synonym	*Polypodium evectum* G.Forst.
Common Names	English: elephant fern, giant fern, king fern, mule's-foot fern, turnip fern; Malay: duku, paku gajah; Chinese: 伸叶观音座莲（shēn yè guān yīn zuò lián)
Scientific Family Name	Marattiaceae
Common Family Name	elephant fern family
Origin	Madagascar, Sri Lanka, Vietnam, Thailand, Peninsular Malaysia, Singapore, and Polynesia
Growth Form	The stem of this huge fern, which is short, stout, and fleshly, bears large bipinnate leaves inserted at its tip. The leaf stalks, up to about 1.5 m long, are distinctly swollen at the base and have a bright green colour with whitish streaks. At the base of these leaf stalks are the brown stipules, positioned in a way that gives the stem a lotus flower-like appearance.
Habitat	It grows in slightly open and disturbed secondary forest, along streams in primary forest, and on hills, up to 1,200 m in altitude. It is known locally from Nassim Road, Nee Soon Swamp Forest, and Pulau Ubin.
National Conservation Status	Vulnerable and cultivated
Foliage	Its leathery, spirally arranged leaves grow to about 2–3 m long and 2 m wide, depending on degree of exposure to sunlight. Primary leaflets are up to 1 m long or more. Narrowly oblong to elliptic in shape, the secondary leaflets with bluntly toothed leaf margins, are about 20 cm by 3 cm. Recurrent veins, which are visible non-conducting lines, that run between true veins are present and often only slightly beyond the sori. These lines may suggest that the leaves were more finely divided but over evolutionary time, the finer divisions have joined together.
Sori	Its sori (clusters of sporangia) are positioned near the leaflet blade margins, each sitting on a true vein.
Uses and Folklore	In Thailand, the stem is used in traditional medicine. Roots of the fern stop bleeding after a miscarriage while pounded leaves alleviate cough symptoms.
References	Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Johnson, A., 1977. *The Ferns of Singapore Island. 2nd Edition*. Singapore National Printers (Pte.) Ltd., Singapore. 126 pp. Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur. 458 pp. Tagawa, I. & Iwatsuki, K., 1979. Pteridophytes. Part I: Psilotaceae to Dennstaedtiaceae. *Flora of Thailand*, **3**: 1–128. Wee, Y. C., 2002. *A Guide to The Ferns of Singapore*. *3rd Edition*. Singapore Science Centre, Singapore. 72 pp.

Anisophyllea disticha (Jack) Baill.: a, habit; b, close-up showing the stem of a sapling; c, wagon wheel-like branching pattern of the sapling; d, undersurface of its leaves with flowers; e, alternate arrangement of large and small leaves. Scale bars = 10 cm (a), 1 cm (b), 2 cm (c–e). (Photographs by: www.NatureLoveYou.sg [a, c–e] and Li Tianjiao [b]).

Scientific Name	*Anisophyllea disticha* (Jack) Baill.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Anisophyllea*, unequal leaves, referring to the two leaf sizes along the branches; Latin *disticha*, two-ranked, referring to larger leaves and two smaller leaves on opposite sides on a branch
Synonyms	*Anisophyllea rhomboidea* Baill.; *Anisophyllum trapezoidale* Baill.; *Anisophyllea trapezoidalis* (Baill.) Baill.; *Haloragis disticha* Jack
Common Names	English: leechwood, mousedeer tree; Malay: balam ayam, kayu pacat, kayu ribu ribu, pokok kancil, raja berangkat, rambai ayam
Scientific Family Name	Anisophylleaceae
Common Family Name	leechwood family
Origin	Sumatra, Lingga Island, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a male or female tree up to 7.6 m tall, with droopy branches arranged in tiers.
Habitat	It grows in lowland forest, freshwater swamp forest, and on granitic sands. It occurs locally in Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Chestnut Drive, Kent Ridge Park, and Pulau Tekong Kechil.
National Conservation Status	Common
Foliage	It has two kinds of alternate, stalkless leaves. Its larger leaves, with rhomboid leaf blades, are 1.3–9 by 0.5–3 cm. They are closely arranged along the sides of branches with touching leaf margins. Its smaller leaves with lance-shaped leaf blades are up to 5 mm long.
Flowers	Flowers are pinkish white. Its male flower clusters are up to 7 cm long. The male flowers are up to 2 mm long. Its female flowers are about 2 mm long and often solitary or occasionally on 2 cm-long flowering shoots.
Fruits	Its bright red drupe is drop-shaped and 1.8–2.5 cm long. The fruits hang below twigs singly or in pairs. Its seed is up to 2 cm long, with about 6–8 grooves.
Uses and Folklore	Its trunk can be made into walking sticks and shafted weapons. Its leaves and stem are used in treatment for diarrhoea, dysentery, and jaundice.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ding, H., 1955. Rhizophoraceae. *Flora Malesiana*, Series I, **5**: 429−493. Kochummen, K. M., 1989. Rhizophoraceae. *Tree Flora of Malaya*, **4**: 302−323 Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Aporosa falcifera Hook.f.: a, leaves have an alternate arrangement with one leaf per node; b, lower surface of the leaf blades are whitish; c, its bud is brown hairy; d, new leaves are silvery hairy. Scale bars = 5 cm (a), 2 cm (b), 1 cm (c, d). (Photographs by: Koh Choon Yen).

Scientific Name	*Aporosa falcifera* Hook.f.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *apo*, away from; Greek *oros*, mountain; Latin *falcifera*, sickle-shaped
Synonyms	*Aporosa acuminatissima* Merr.; *Aporosa hosei* Merr.; *Aporosa merrilliana* Govaerts & Radcl.-Sm.
Common Names	Malay: damak-damak, kayu dusun, pisang-pisang
Scientific Family Name	Phyllanthaceae
Common Family Name	Indian gooseberry family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, Borneo, and North Sulawesi
Growth Form	It is a tree up to 24 m tall, with black hairy branches.
Habitat	It grows in forested areas, in the lowlands up to 540 m in altitude, and sometimes in seasonal swamp forests. It occurs locally in the vicinity of MacRitchie Reservoir and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have thinly leathery leaf blades that are narrowly oval to narrowly drop-shaped, bright green to reddish-brown above when dried, golden brown below when dried, and 9.5–43 by 3.5–13 cm. Its midrib and nerves are elevated on the undersurface of the leaf blade. Stipules are sickle-shaped.
Flowers	Its male flowering shoots are 8–16 mm long, bearing 9–13 densely clustered flowers that are 1–2 mm long. Its female flowering shoots are 7–15 mm long, bearing up to 11 densely clustered flowers that are 2–2.5 mm long. Its flowers are yellowish.
Fruits	Its fruits grow in clusters that are 9–25 mm long, are egg-shaped, red, dark to greyish-brown when dried, and 9–15 by 6–12 mm. Each fruit bears 3 seeds that are ellipsoid, covered with pulp, and 5–6 by 3–4 by 2–3 mm.
Uses and Folklore	It has horticultural potential as a park tree.
References	Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Schot, A., 2004. *Systematics of Aporosa*. Nationaal Herbarium Nederland, Universiteit Leiden branch, The Netherlands. 380 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 20 May 2011). Whitmore, T. C., 1973. Euphorbiaceae. *Tree Flora of Malaya*, **2**: 34−136.

Aporosa frutescens Blume: a, undersurface of leaves showing leaf stalks that are swollen at both ends (arrowed), with midribs and secondary veins prominent below. b, close-up of upper surface of the leaves showing the prominent midribs and sunken secondary veins; c, alternate arrangement of the leaves (upper sides); d, close-up of its flower clusters; e, close-up of its fruit. Scale bars = 5 cm (a, b), 10 cm (c), 5 mm (d), 2 cm (e). (Photographs by: Tan Siu Yueh [a–c] and www.NatureLoveYou.sg [d, e]).

Scientific Name	*Aporosa frutescens* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *apo*, away from; Greek *oros*, mountain; Latin *frutescens*, shrubby or bushy
Synonyms	*Aporusa fruticosa* (Blume) Müll.Arg.; *Leiocarpus fruticosus* Blume
Common Names	English: bastard rukam; Malay: rukam hutan
Scientific Family Name	Phyllanthaceae
Common Family Name	Indian gooseberry family
Origin	Sumatra, Myanmar, Thailand, Peninsular Malaysia, Singapore, Java, Borneo, the Philippines, Sulawesi, and the Moluccas
Growth Form	It is a tree up to 27 m tall.
Habitat	It grows in primary, secondary, and disturbed forests, on hilltops, hillsides, hill ridges, along river banks, roads, lakes, and forest margins up to a 1,500-m altitude. It occurs locally in the Bukit Timah Nature Reserve, Mandai Forest, Nee Soon Swamp Forest, Pulau Ubin, and the Western Catchment Area.
National Conservation Status	Common
Foliage	Its alternate, stalked leaves have papery to thinly leathery leaf blades that are narrowly elliptic to narrowly egg-shaped, greyish-green to yellowish-green when dried, and 6.5–20 by 1.5–7.5 cm. Its midrib is slightly prominent above, and more prominent below.
Flowers	Its flowers are yellow. Its male flowers are 0.3–0.7 mm long, and grow in clusters of 1–4 on flowering shoots that are 5–22 mm long. Its female flowers are 1.5–3 mm long, and grow on female flowering shoots that are 2–7 mm long.
Fruits	Its smooth, round fruits grow in clusters. The fruits are yellow-orange-red, light or brownish-yellow when dried, and 9–15 by 10–15 mm. Each fruit bears 2–4 seeds that are flattened-round, covered with orange-red pulp, and 8–11 by 6–9 by 3–5 mm.
Uses and Folklore	Its timber is used for construction of houses.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Schot, A., 2004. *Systematics of* Aporosa. Nationaal Herbarium Nederland, Universiteit Leiden branch, The Netherlands. 380 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 20 May 2011). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Euphorbiaceae. *Tree Flora of Malaya*, **2**: 34−136.

Archidendron clypearia (Jack) I.C.Nielsen: a, close-up of angular branch and base of leaf stalks that are swollen; b, single bipinnate leaf. The secondary leaflets gradually decrease in size towards the lowermost leaflets. c, close-up of yellowish-orange, flattened fruit pod; d, close-up of its angular stem. Scale bars = 2 cm (a, c), 10 cm (b), 5 cm (d). (Photographs by: Holly Joy Siow May-Ping [a, b] and www.NatureLoveYou.sg [c, d]).

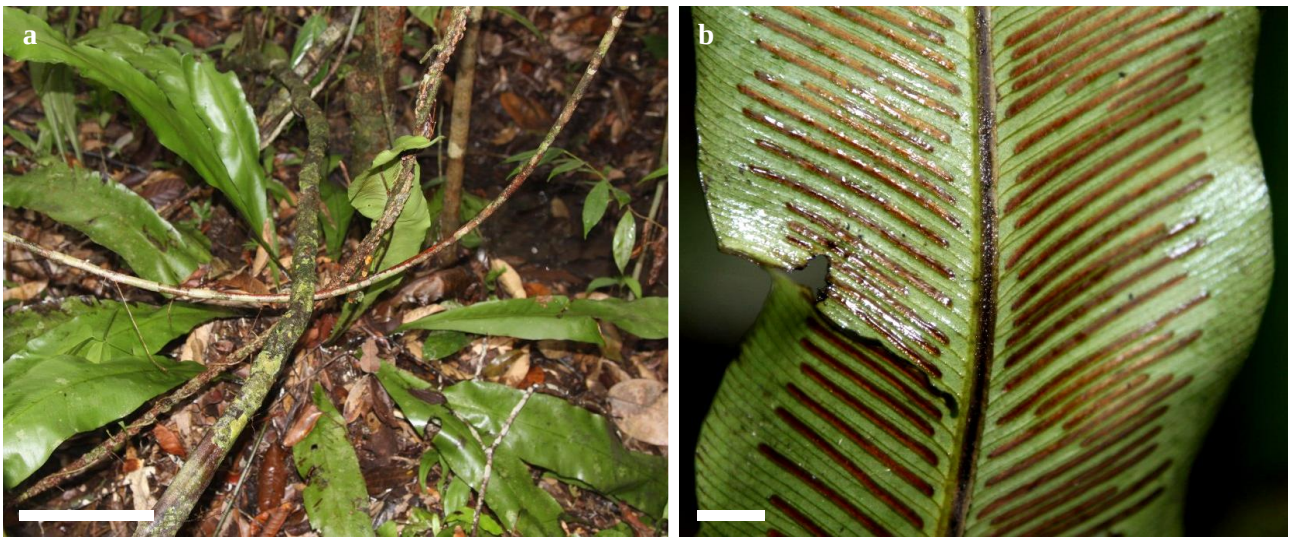
Scientific Name	*Archidendron clypearia* (Jack) I.C.Nielsen
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *archi*, primitive; Greek *dendron*, tree; Latin *clypearia*, resembling the small round Roman shield, a reference to the use of the wood in making sheaths of weapons
Synonyms	*Abarema angulata* (Benth.) Kosterm.; *Abarema clypearia* (Jack) Kosterm.; *Inga clypearia* Jack; *Pithecellobium angulatum* Benth.; *Pithecellobium clypearia* (Jack) Benth.; *Pithecellobium clypearia* (Jack) Benth. var. *acuminatum* Gagnep.
Common Names	English: greater grasshopper tree; Chinese:猴耳环 (hóu ěr huán)
Scientific Family Name	Fabaceae
Common Family Name	bean family
Origin	India to Borneo (including Singapore)
Growth Form	It is a shrub or much-branched tree up to 22 m tall.
Habitat	It grows in open country, primary and secondary forests, peat swamp and freshwater swamp forests, up to a 1,850-m altitude. It occurs locally in the vicinity of Bukit Kallang Reservoir, Mandai Road, Nee Soon Swamp Forest, Pulau Tekong, and Upper Peirce Reservoir.
National Conservation Status	Common
Foliage	Its alternate, long-stalked, bipinnate leaves possess 3–14 pairs of primary leaflets each. The lowermost primary leaflet bears 3–6 pairs of secondary leaflets, while the uppermost bears 8–14 pairs of papery, secondary leaflets. The secondary leaflets are opposite, distinctively diamond-shaped, shiny green above, and measure 1–7.6 by 0.7–3.8 cm. The secondary leaflets gradually decrease in size towards the lowermost leaflet.
Flowers	Its stalked, bisexual flowers develop in clusters of up to 10, and have white to yellowish petals. The clusters are arranged in shoots of more than 30 cm in length, at the axils of older leaves or the axils of leaf scars of the twigs.
Fruits	Its flattened fruits are orange-yellowish on the outside and reddish inside. They are 1–1.5 cm wide, spirally twisted pods that contain 4–10 seeds. Its seeds are black, egg-shaped, up to 1 cm wide, and wrinkled when dry.
Uses and Folklore	Sheaths of weapons are made using the wood. The bark is used to make hair shampoo, and in tanning of fishing nets. Chicken pox, coughs, small pox, sore legs, and swellings can be treated by applying the leaves as a poultice. The leaves are employed in the colouring and tanning of rattan.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Nielsen, I. C. & H. C. F. Hopkins, 1992. Mimosaceae (Leguminosae–Mimosoideae). *Flora Malesiana*, Series I, **11**: 1–226. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Wee, Y. C., 2003. *Tropical Trees and Shrubs. A Selection for Urban Plantings.* Sun Tree Publishing Limited, USA. 393 pp. Wu, D. & I. C. Nielsen, 2010. *Archidendron* F. Mueller. *Flora of China*, **10**: 66–71. http://flora.huh.harvard.edu/china/PDF/PDF10/Archidendron.pdf. (Accessed 3 Sep.2010).

Artocarpus elasticus Reinw. ex Blume: a, close-up of a young stem showing the ring-like, stipular scars (arrowed); b, close-up of a lobed leaf; c, close-up of an unlobed leaf with toothed leaf margin; d, leaves arise from the tip of a branch, one leaf per node; e, close-up of a densely hairy bud and brownish stipule that will soon be shed; f, buttress root. Scale bars = 1 cm (a), 5 cm (b–d), 2 cm (e), 10 cm (f). (Photographs by: Koh Choon Yen [a, b, d], Tan Siu Yueh [c, e], and www.florasingapura.com [f]).

Scientific Name	*Artocarpus elasticus* Reinw. ex Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *artos*, bread; Greek *karpos*, fruit, referring to breadfruit, *Artocarpus altilis*; Latin *elasticus*, producing an elastic substance, referring to the latex found in this species
Synonyms	*Artocarpus blumei* Trécul; *Artocarpus kunstleri* King; *Artocarpus scortechinii* King; *Saccus blumei* Kuntze; *Saccus elasticus* Kuntze
Common Name	Malay: terap
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Myanmar, Thailand, Sumatra, Peninsular Malaysia, Singapore, the Philippines, Borneo, Java, Sulawesi, Lesser Sunda Islands, and the Moluccas
Growth Form	It is a tree up to 65 m tall, with a grey-brown bark which is smooth to slightly scaly and strong buttresses up to 3 m tall when old.
Habitat	It grows in lowland primary and secondary forests to lower montane forests, and open country, up to 1,500 m in altitude. It is known locally from Fort Canning Park, Lower and Upper Peirce reservoirs, Nee Soon Swamp Forest, Pulau Tekong, and Rifle Range Link.
National Conservation Status	Common
Foliage	Its alternate, stalked leaves have very stiff leathery leaf blades that are usually egg-shaped, 13–60 by 6–35 cm, sparsely hairy above, and densely hairy below. Each leaf blade bears of 12–14 secondary nerves, which are distinct above, and raised below. Its juvenile leaves have leaf blades that are dissected into 2–5 pairs of lobes, 60–120 cm long.
Flowers	Its flowering heads are found singly on leafy twigs. Its male flowers develop in finger-like heads that are yellowish then brownish, and 6–20 by 1–3.4 cm, with distinctly deep grooves. Its female flowers are upright, in barrel-shaped heads that are green then cream-coloured, and about 10 by 7.6 cm, with soft, hairy, backward-curving spines.
Fruits	Its fruits are yellow brown, 6–18 by 5.5–10 cm, woolly with soft, backward-curving spines, and emitting an unpleasant, rancid smell when ripe. Its seeds are embedded in white pulp.
Uses and Folklore	The wood is sold commercially as terap timber and used mostly for light construction, i.e., in fishing boats. The tough bark is used to hold bamboo blow-pipes together, line baskets and bins, make clothes, fishing lines and nets, and walls of houses. The bark is also used as a natural bandage, and string for spinning tops. Bird lime is made using the tenacious latex. The inner bark, leaves, latex, and maybe roots, are used medically. The fruit pulp and roasted seeds are edible.
References	Berg, C. C., E. J. H. Corner & F. M. Jarrett, 2006. *Artocarpus* subgenus *Artocarpus*. *Flora Malesiana*, Series I, **17**: 77–107. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M., 2000. *Artocarpus* J. R. & G. Forster, *nom. conserv*. In: Kochummen, K. M. & R. Go (eds.), Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 187−212. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Artocarpus kemando Miq.: a, close-up of the stem; b, habit of a young individual; c, upper surface of leaves; d, lower surface of leaves; e, secondary veins that curve near the leaf blade's margin; f, close-up of stipule. Scale bars = 2 cm (a, f), 10 cm (b), 5 cm (c–e). (Photographs by: Koh Choon Yen [a–e] and Tan Siu Yueh [f]).

Scientific Name	*Artocarpus kemando* Miq.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *artos*, bread; Greek *karpos*, fruit, referring to breadfruit, *Artocarpus altilis*; *kemando*, Sumatran vernacular name of this species
Synonyms	*Artocarpus brunneifolia* Moore; *Saccus kemando* Kuntze
Common Names	English: squirrel's jack; Malay: cempedak air
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 40 m tall, with brown smooth or fissured bark and buttresses as high as 2.5 m.
Habitat	It grows in lowland evergreen forests up to 900-m altitude, often in swampy places. It is known locally from the Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Endangered
Foliage	Its spirally arranged, stalked leaves have leathery leaf blades that are egg-shaped to somewhat drop-shaped, 3–18 by 1.5–10 cm, distinctly tipped, and sparsely fine, white-hairy. The leaf blade has 6–9 pairs of secondary veins, which are raised below, and curved near the margins. Its leaf parts also exude white sap when damaged. Sapling leaves are highly lobed, and have rough hairs along both sides of the veins.
Flowers	The plant bears both male and female flowers on the same plant. Its flowering head is found singly or in pairs, at the axils of leaves or leaf scars on the twigs. The male flower heads are cylindrical, and 2–4 cm long.
Fruits	Its compound fruit is flattened-round to rather round, up to 4.5 by 3.5 cm, and develop at the axils of leaves or leaf scars on the twigs. The compound fruit consists of fruits that are up to 8 mm long each. The compound fruit is velvety, and are attached to a hairy stalk.
Uses and Folklore	Household utensils, and door or window frames are made using the timber, also known as terap. The latex is substituted for coconut oil in cooking. Bird-lime can also be made using the latex. The fruits can be eaten.
References	Berg, C. C, E. J. H. Corner & F. M. Jarrett, 2006. *Artocarpus* subgenus *Artocarpus*. *Flora Malesiana*, Series I, **17**: 77–107. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M., 2000. *Artocarpus* J. R. & G. Forster, *nom. conserv*. In: Kochummen, K. M. & R. Go (eds.), Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 187−212. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 29 Dec.2010). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Asplenium batuense Alderw.: a, habit; b, close-up of lower surface of a fertile leaf showing the sporangia. Scale bars = 20 cm (a), 1 cm (b). (Photographs by: Koh Choon Yen).

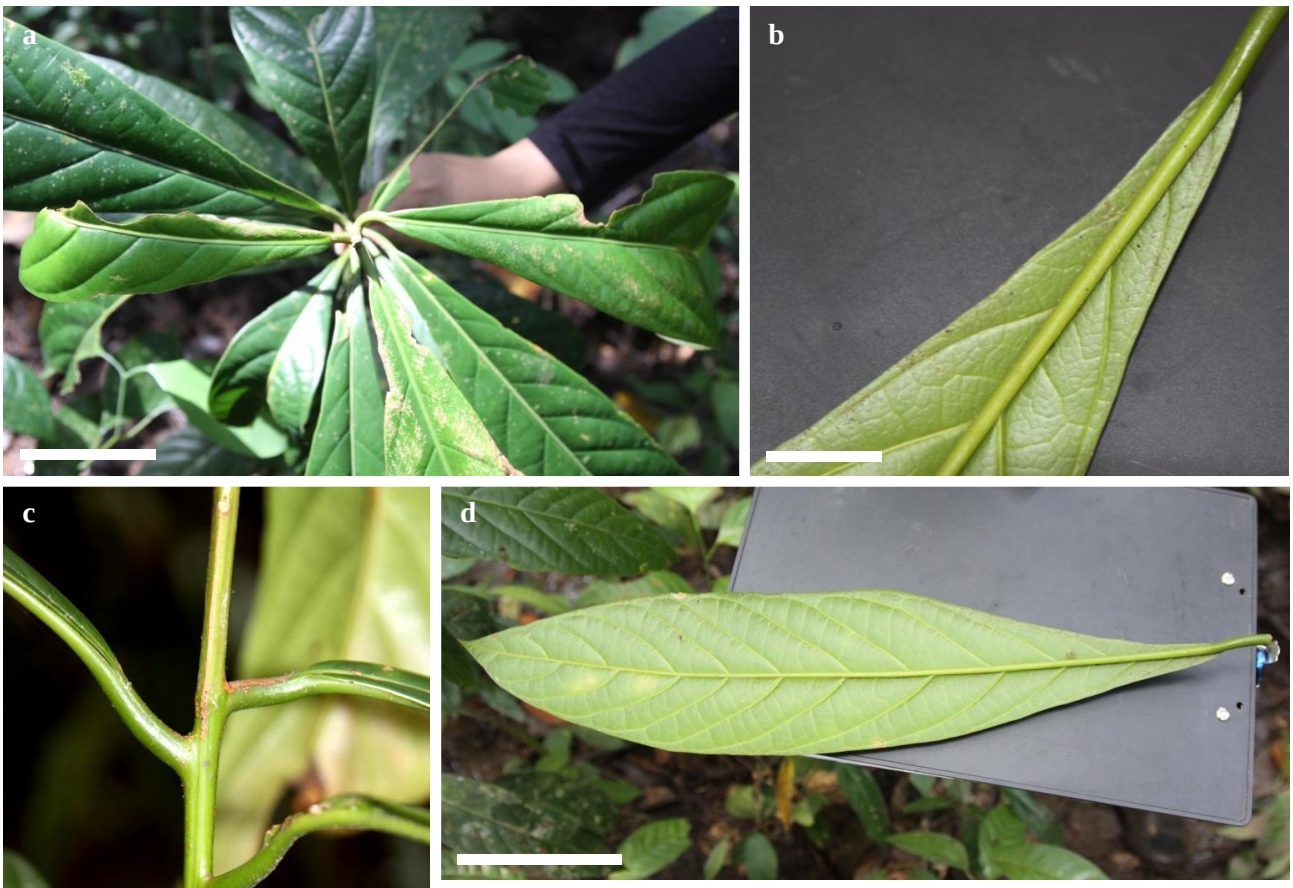
Scientific Name	*Asplenium batuense* Alderw.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Asplenium*, is derived from *a*, not and *splenon*, spleen, referring to its medicinal qualities; Latin *batuense*, probably suggesting that the fern orginated from the Batu islands of Sumatra
Synonym	–
Common Name	–
Scientific Family Name	Aspleniaceae
Common Family Name	bird's nest fern family
Origin	Sumatra, Peninsular Thailand, Malaysia, Singapore, and West Java
Growth Form	Its spirally arranged, simple leaves grow out from a creeping or climbing stem and are loosely arranged into a rosette, forming a nest-like structure. This helps this epiphytic fern to collect leaf debris from the surrounding plants to provide nutrients and store moisture. Often the fern is spotted growing at the base of trees.
Habitat	It grows in lowland forests and often in freshwater swamps, up to 1,100 m in altitude. It is known locally from Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its leaves are leathery, simple, sword-shaped, and up to 100 by 12 cm. The midrib is flattened above but distinctly raised below with a narrow irregular wing on either side. The secondary veins are separate and branched once or twice.
Sori	Its sori (clusters of sporangia) are long, narrow, and covered by a membrane. They are well-spaced and arranged along the secondary veins of a fertile frond.
Uses and Folklore	–
References	Holttum, R. E., 1966. *A Revised Flora of Malaya, Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Turner, I. M. & Chua, K. S., 2011. *Checklist of The Vascular Plant Species of Bukit Timah Nature Reserve*. Raffles Museum of Biodiversity Research and Department of Biological Science, Faculty of Science, National University of Singapore, Singapore. 85 pp.

Baccaurea bracteata Müll.Arg.: a, one leaf per node and spiral arrangement of leaves; b, both ends of the leaf stalk are swollen (arrowed); c, dark green leaf upper surface; d, whitish to pale green leaf undersurface; e, semi-ripe fruits and the tip of the twig. Scale bars = 2 cm (a, c–e), 1 cm (b). (Photographs by: Holly Joy Siow May-Ping [a–d] and Ang Wee Foong [e]).

Scientific Name	*Baccaurea bracteata* Müll.Arg.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *bacca*, berry; Latin *aurea*, golden referring to the golden colour of the berries; Latin *bracteata*, having bracts (a modified leaf generally associated with the flower or flower cluster), referring to the bracts in the male flowering clusters
Synonyms	*Baccaurea bracteata* Müll.Arg. var. *crassifolia* (J.J.Sm.) Airy Shaw; *Baccaurea crassifolia* J.J.Sm.; *Sapium sterculiaceum* Wall.
Common Names	English: monkey's tampoi; Malay: tampoi kera, tampoi tangau (formerly spelt tunggau)
Scientific Family Name	Phyllanthaceae
Common Family Name	Indian gooseberry family
Origin	Sumatra, Peninsular Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a small tree up to 25 m tall, with a round crown. It has light grey-brown, minutely scaly bark.
Habitat	It grows in primary or secondary, freshwater swamp, heath swamp or peat swamp forests, up to 900 m in altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spiral, long-stalked leaves possess papery to somewhat leathery leaf blades that are elliptic to egg-shaped to drop-shaped, and 3.5–21 by 1.7–9.8 cm. Its young leaves have leaf blades that are whitish to dark-green above, and white to pale-green below. The underside of its leaf blades has black dots and its hairy veins are raised below.
Flowers	Its branched, male flowering clusters are up to 16 cm long, and bear up to 100 red, 1.5–2.9 mm-wide, male flowers. Leaf-like bracts are also present below the male flowering clusters. Its female flowering clusters are up to 6.5 cm long, and bear up to 30 female flowers that are 4–12 mm wide, and yellowish to greenish to red-brown.
Fruits	Its round fruits are dark red, and 1.9–2.5 cm wide. They are three-shouldered, and found singly or in pairs on 5–10 cm-long shoots on the twigs and branches. They split into three parts when ripe to reveal 3–6 seeds in yellow, sour pulp. Its seeds are egg-shaped to drop-shaped, and 4–6.5 mm wide.
Uses and Folklore	The timber is reported to be of good quality. In Sarawak, the shoots are used in constructing laminaang (a type of longhouse found in the Dayak Kenyah village). The fruit pulp is edible but sour. It has horticultural potential for its attractive round crown, and white to pale-green leaf blade undersides, and tolerance of dry to damp soil conditions makes it suitable for most sites.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Haegens, R. M. A. P., 2000. *Taxonomy, Phylogeny, and Biogeography of* Baccaurea, Distichirhops, Nothobaccaurea *(Euphorbiaceae)*. *Blumea*, Supplement **12**: 1–218 pp. Jansen, P. C. M., J. Jukema, L. P. A. Oyen & T. G. van Lingen, 1991. *Baccaurea bracteata* Muell. Arg. In: Verheij, E. W. M. & R. E. Coronel (eds.), Proseabase. PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia. http://www.proseanet.org/prosea/e-prosea_detail.php?frt=&id=1584. (Accessed 28 Jul. 2010). Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

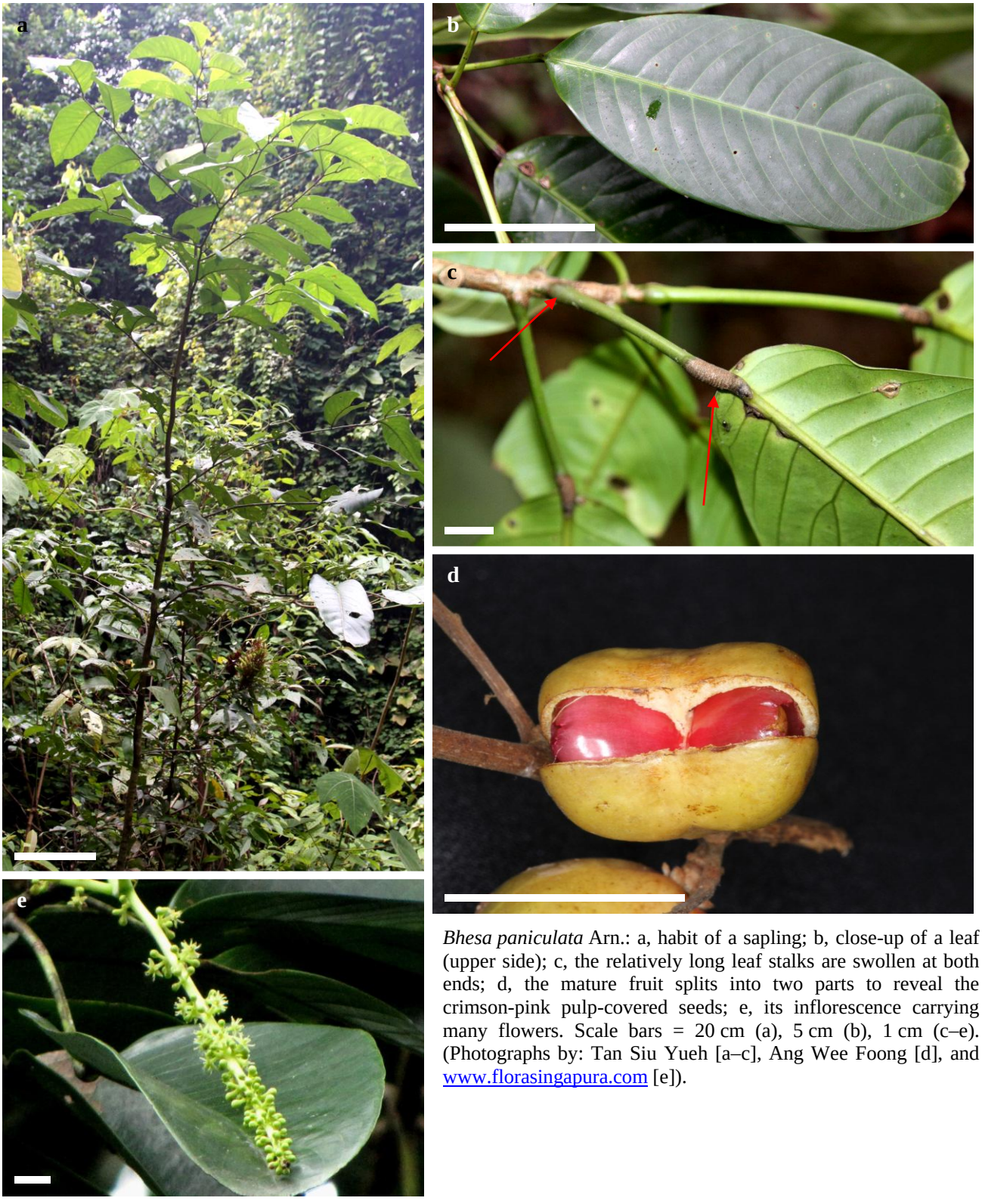
Bauhinia semibifida Roxb. var. *semibifida*: a, bilobed leaf blades; b, tendril that grows around a twig of another plant for support; c, close-up of its bilaterally symmetrical white-petalled flower; d, hairy and folded young leaf blades; e, small reddish stipules. Scale bars = 5 cm (a), 1 cm (b–e). (Photographs by: Koh Choon Yen [a, b], www.NatureLoveYou.sg [c, d], and Teo Siyang [e]).

Scientific Name	*Bauhinia semibifida* Roxb. var. *semibifida*
Main Group Key that Applies	Climbers
Etymology	Latin *Bauhinia*, named after two Swiss brothers and botanists, Johann (Jean) and Caspar (Gaspard) Bauhin; Latin *semi*, half; Latin *bifida*, cleft into two parts, a reference to the half-cleft leaf blades of this species
Synonyms	*Bauhinia borneensis* Merr.; *Phanera sumatrana* Miq.
Common Name	English: common bauhinia
Scientific Family Name	Fabaceae
Common Family Name	bean family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, the Philippines, and Sulawesi
Growth Form	It is a tendril-bearing climber which is mostly slender, though stems can be up to 15 cm across. Its stems are also covered with brown hairs which are lost through abrasion as the plant ages.
Habitat	It grows along roadsides, and forest edges up to 2,000 m in altitude. It occurs locally in Bukit Kallang, along Clementi Road, and Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its simple, stalked leaves possess bilobed leaf blades that resemble the wings of a butterfly flattened out, are 4–11 cm wide, and covered with brown hairs below. Its stipules are small and reddish.
Flowers	Its flowering shoot develops from the tips of branches or leaf axils. It consists of clusters of stalked flowers that are bilaterally symmetrical, with 5, white petals that will turn yellow or yellow-green with age. Its flower buds are club-shaped. The calyx which encloses the petals is densely hairy.
Fruits	Its fruits are like dried, woody, strap-shaped pods that are 10–20 by 3–4 cm. They each contain up to 6 disc-like, flat seeds.
Uses and Folklore	Its powdered roots are used medicinally in Malay folk medicine. It is occasionally cultivated as an ornamental climber.
References	Hou, D., K. Larsen & S. S. Larsen, 1996. Caesalpiniaceae. *Flora Malesiana*, Series I, **12**: 409−730. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Tan, H. T. W. & T. Morgany, 2001. *A Guide to Growing the Native Plants of Singapore.* Singapore Science Centre, Singapore. 168 pp.



Beilschmiedia kunstleri Gamble: a, leaves have a spiral arrangement; b, veins are prominent and midrib is raised on the lower surface of the leaf blade; c, close-up of leaf stalks; d, leaf. Scale bars = 5 cm (a), 2 cm (b, c), 10 cm (d). (Photographs by: Li Tianjiao).

Scientific Name	*Beilschmiedia kunstleri* Gamble
Main Group Key that Applies	Trees and Shrubs
Etymology	*Beilschmiedia*, commemorating C. T. Beilschmied, a German botanist and chemist; Latin *kunstleri*, commemorating H. H. Kunstler, a German plant collector
Synonym	–
Common Name	–
Scientific Family Name	Lauraceae
Common Family Name	cinnamon family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree which can grow to 20 m tall, with a smooth, lenticellate, brownish trunk bark.
Habitat	It grows in lowland and hill forests. It occurs locally in Bukit Timah Nature Reserve, Nee Soon Swamp Forest, and the vicinity of Upper Peirce Reservoir.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked leaves have very leathery leaf blades which are somewhat egg-shaped, narrower at the base, 24–34 by 6–14 cm, and wrinkled when dry.
Flowers	Its pinkish-red to velvety dark red flowers grow in clusters at the leaf axils.
Fruits	Its blue-purple fruits are egg-shaped, and 1.5 by 1 cm, with bright red, swollen stalks.
Uses and Folklore	The plant has horticultural potential as a park tree.
References	Kochummen, K. M., 1989. Lauraceae. *Tree Flora of Malaya*, **4**: 98−178. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 22 Feb.2011).



Bhesa paniculata Arn.: a, habit of a sapling; b, close-up of a leaf (upper side); c, the relatively long leaf stalks are swollen at both ends; d, the mature fruit splits into two parts to reveal the crimson-pink pulp-covered seeds; e, its inflorescence carrying many flowers. Scale bars = 20 cm (a), 5 cm (b), 1 cm (c–e). (Photographs by: Tan Siu Yueh [a–c], Ang Wee Foong [d], and www.florasingapura.com [e]).

Scientific Name	*Bhesa paniculata* Arn.
Main Group Key that Applies	Trees and Shrubs
Etymology	Pali *bhesa* and *bhesa bol*, referring to the resin of false myrrh; Latin *paniculatus*, having flowers arranged in a branched cluster (a panicle)
Synonym	–
Common Names	English: malayan spindle tree; Malay: benak, biko-biko, buku-buku, medang tanduk, medang tijuk, sepauh, tampoi kelawar, tas
Scientific Family Name	Celastraceae
Common Family Name	spindle-tree family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 35 m tall, with a dark green, heavy crown.
Habitat	It grows in lowland primary and secondary forests, and peat swamp forest, to submontane forests up to 1,500 m in altitude. It occurs locally in Bukit Timah Nature Reserve, Nee Soon Swamp Forest, Old Upper Thomson Road, and in the vicinity of Upper Seletar Reservoir.
National Conservation Status	Common
Foliage	Its spirally arranged leaves have long stalks that are swollen at both ends. They also have thinly leathery leaf blades that are egg-shaped to oblong, pointing downwards, and 5.5–39 by 2–15 cm, with finely crowded, parallel veinlets between the secondary veins. The leaf blades are often smooth and shiny on both upper and lower surfaces.
Flowers	Its flowers are faintly fragrant, yellowish-cream or dark purplish-red, and 5 mm wide. They are arranged in panicles up to 38 cm long at the end of leafy twigs. The petals are oblong and hairy inside.
Fruits	Its two-lobed fruits are flattened heart-shaped, 1–2 by 0.8–1.3 cm, yellow then rose-red, and found in large clusters. They split into 2 parts when ripe to reveal 2–4 seeds half covered with crimson-pink pulp. Its seeds are round, pale brown, and 6–8 mm wide.
Uses and Folklore	The rather hard wood is used for constructing houses, and making beams, floorboards, and poles. The fruits are edible. It is occasionally cultivated as an ornamental tree.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Hou, D., 1962. Celastraceae—I. *Flora Malesiana*, Series I, **6**: 227−292. Kochummen, K. M., 1972. Celastraceae. *Tree Flora of Malaya*, **1**: 156–171. Kochummen, K. M., 1995. Celastraceae. *Tree Flora of Sabah and Sarawak*, **1**: 107−154. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Philippines. 750 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Bhesa robusta (Roxb.) Ding Hou: a, leaves; b, close-up of stem; c, close-up of a leaf (upper side); d, close-up of a branchlet showing the one leaf per node arrangement of the foliage; e, each egg-shaped fruit contains one oblong brown seed. Scale bars = 5 cm (a, c), 2 cm (b, d), 1 cm (e). (Photographs by: Koh Choon Yen [a–d] and Hugh Tan Tiang Wah [e]).

Scientific Name	*Bhesa robusta* (Roxb.) Ding Hou
Main Group Key that Applies	Trees and Shrubs
Etymology	Pali *bhesa* and *bhesa bol*, referring to the resin of false myrrh; Latin *robusta*, stout or strong in growth, referring to the growth form of this species
Synonyms	*Bhesa moja* Buch.-Ham.; *Celastrus robustus* Roxb.; *Kurrimia robusta* (Roxb.) Kurz; *Kurrimia sinica* Hung T. Chang & S.Ye Liang; *Sarcosperma tonkinense* Lecomte
Common Names	English: red-flowered Malayan spindle tree; Malay: biku-biku, buku-buku, medang buaya, membatu merah, pauh-pauh, sepauh; Chinese:膝柄木 (xī bǐng mù)
Scientific Family Name	Celastraceae
Common Family Name	spindle-tree family
Origin	Northeast India, Sumatra, Myanmar, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 40 m tall, with brown bark, and buttresses up to 4 m tall.
Habitat	It grows in primary lowland forests, up to a 1,075-m altitude, on clay-rich soil. It is also sometimes found in periodically inundated forests. It is found locally in Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its spirally arranged, stalked leaves have egg-shaped or oblong leaf blades that are 6–16 by 2.5–8.5 cm.
Flowers	Its almost stalkless flowers are arranged in a flowering shoot of about 15 cm long. Flowers have oblong to egg-shaped, red petals, 2.5–3 by 0.7–1.3 mm. Its calyx lobes are broadly egg-shaped to round.
Fruits	Its egg-shaped, olive yellow fruits have 2 vertical grooves and a pointed tip. Fruits are 3–3.5 by 1–1.3 cm and usually contain 1 seed. Its oblong, brown seeds are on a round placenta and covered completely or sometimes only the lower part, with shiny, orange-yellow pulp. Its seeds are about 1–2 cm long.
Uses and Folklore	The timber is used for constructing houses, beams, and cabinets.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Hou, D., 1962. Celastraceae-I. *Flora Malesiana*, Series I, **6**: 227−292. Kochummen, K. M., 1995. Celastraceae. *Tree Flora of Sabah and Sarawak*, **1**: 107−154. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Blechnum finlaysonianum Wall. ex Hook. & Grev.: a, habit; b, close-up of lower surface of a fertile leaflet, showing the sori (spore clusters) along both sides of the midrib; c, close-up of leaf stalk with the well-spaced, much reduced, leaflets. Scale bars = 20 cm (a), 2 cm (b, c). (Photographs by: Tan Siu Yueh).

Scientific Name	*Blechnum finlaysonianum* Wall. ex Hook. & Grev.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Blechnum*, derived from *blechnon* which refers to the ferns in general; *finlaysonianum* refers to G. Finlayson, the discoverer of the said plant
Synonym	–
Common Name	–
Scientific Family Name	Blechnaceae
Common Family Name	blechnum family
Origin	Malaysia and Singapore
Growth Form	It is large terrestrial fern, up to 1.7 m tall, with an inconspicuous, erect stem that bears many leaves at its tip.
Habitat	It grows in shady, lowland and mid-mountain forests up to 500 m in altitude. It is known locally from the Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Vulnerable
Foliage	Its stalked, pinnate leaves are about 1 m long or more, and bear numerous, shortly stalked leaflets. The leaflets can reach a maximum size of 40 by 4 cm. Distinctive, small, round auricles or much reduced leaflets of less than 1 cm wide that are about 4 cm apart from each other can be observed on the leaf axis. Young leaves are reddish and turn green over time.
Sori	Its linear sori (clusters of sporangia) are covered with a membrane. The sori grow parallel and very closely to both sides of the midrib of a fertile leaflet.
Uses and Folklore	–
References	Holttum, R. E., 1966. *A Revised Flora of Malaya, Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp. Wee, Y. C., 2002. *A Guide to The Ferns of Singapore*. *3rd Edition*. Singapore Science Centre, Singapore. 72 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Calophyllum pulcherrimum Wall. Ex Choisy: a, opposite arrangement of the leaves; b, the underside of its leaf blade is covered with a whitish, waxy coating. Its midrib is depressed and secondary veins are parallel to each other. c, the upper surface of the leaf blade; d, leafy branches. Scale bars = 5 cm (a), 2 cm (b, c), 10 cm (d). (Photographs by: Holly Joy Siow May-Ping [a–c] and Teo Siyang [d]).

Scientific Name	*Calophyllum pulcherrimum* Wall. ex Choisy
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kalos*, beautiful; Greek *phyllon*, a leaf, referring to the plant's beautifully-veined leaf blades; Latin *pulcherrimum*, most beautiful, most handsome, referring to the plant's leaf blades
Synonyms	*Calophyllum mesuifolium* Wall.; *Calophyllum plicipes* Miq.
Common Names	Malay: bintangor gasing, bintangor batu
Scientific Family Name	Calophyllaceae
Common Family Name	bintangur family
Origin	Sumatra, Cambodia, Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 30 m tall.
Habitat	It grows in lowland forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Common
Foliage	Its shortly stalked leaves have leaf blades that are elliptic, oblong to lance-shaped and 3.5–9 by 1.5–3.7 cm. The leaf blade tip is bluntly or sharply pointed and the base is narrow, long and tapered. The leaf blades are often covered with a whitish, waxy coating below and are reddish-brown when fallen. The midrib is depressed into a channel on the underside.
Flowers	Its flowers are 0.5 cm across on thin, 2 cm-long stalks and there are no petals.
Fruits	Its flattened-round or round fruits are up to 2 cm across with a narrow, prolonged tip. The fruit wall is tough, wrinkled, and dry to reddish-brown.
Uses and Folklore	The wood is used for construction purposes.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Guttiferae. *Tree Flora of Malaya*, **2**: 162−236.

Campnosperma squamatum Ridl.: a, spiral leaf arrangement at the tips of branches; b, the tree develops prop roots on wet ground; c, close-up of stem; d, short and swollen leaf stalks are spirally attached to tip of the branch; e, the base of the leaf blade forms ear-like lobes (arrowed); f, light yellow flowers. Scale bars = 10 cm (a), 5 cm (b, f), 2 cm (c, d), 1 cm (e). (Photographs by: Teo Siyang [a, f], and Koh Choon Yen [b–e]).

Scientific Name	*Campnosperma squamatum* Ridl.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *Campnosperma*, bent seed, referring to the shape of the seed; Latin *squamatum*, with scale-like leaves or bracts, referring to the scales on the surfaces of the leaf blades
Synonym	*Campnosperma minor* Corner
Common Name	Malay: terentang jantan
Scientific Family Name	Anacardiaceae
Common Family Name	mango family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 30 m tall.
Habitat	It grows in freshwater or peat swamp forests, and primary forests, from lowlands up to a 1,200-m altitude. It occurs locally in Bukit Kallang, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), and Old Upper Thomson Road.
National Conservation Status	Common
Foliage	Its spirally arranged, very shortly stalked leaves have thinly leathery leaf blades that are narrowly drop-shaped to spatula-shaped or egg-shaped, and 6–61 by 2–14 cm. The base of the new leaf blades slightly widen towards the end of the short leaf stalk to form ear-like lobes (auricles) that encircle the stem. The leaf blades are smooth and occasionally hairy below.
Flowers	Its scantily-branched, flowering shoots are 4–29 cm long, and bear light-yellow or greenish-yellow flowers.
Fruits	Its roundish fruits are green-speckled white or dark green, and 12–17 by 10–17 mm.
Uses and Folklore	It has horticultural potential based on its attractive large leaves and light-yellow or greenish-yellow flowers.
References	Hou, D., 1978. Anacardiaceae. *Flora Malesiana*, Series I, **8**: 395−548. Kochummen, K. M., 1996. Anacardiaceae. *Tree Flora of Sabah and Sarawak*, **2**: 1−92. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Philippines. 750 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Canarium pilosum A.W.Benn.: a, habit; b, reddish and hairy leaflets of a young leaf; c, the pinnate leaf of has a terminal leaflet and the lateral leaflets are oppositely arranged; d, close-up of undersurface of the leaflet blade showing fine, stiff hairs on the leaf's veins and margins; e, awl-like stipules on a young and hairy branch (arrowed). The branch becomes hairless over time. Scale bars = 20 cm (1), 2 cm (b, e), 5 cm (c), 1 cm (d). (Photographs by: Teo Siyang [a–c, e] and www.NatureLoveYou.sg [d]).

Scientific Name	*Canarium pilosum* A.W.Benn.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Canarium*, from the Malay name *kanari* and the Moluccan name *kenari*; Latin *pilosus*, pilose, having long, soft hairs
Synonyms	*Canarium grandiflorum* A.W.Benn.; *Canarium hirtellum* A.W.Benn.; *Canarium motleyanum* Engl.; *Canarium pilosum* A.W.Benn. var. *hirtellum* Ridl.
Common Names	Malay: kedondong hutan, kedondong kerut
Scientific Family Name	Burseraceae
Common Family Name	kedondong family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 27 m tall.
Habitat	It grows in primary forest, swamps, and hills, up to a 600-m altitude. It occurs locally in the vicinity of Seletar Track and Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its stalked leaves have up to 6 pairs of leaflets with leaf blades that are egg-shaped, oblong or elliptic, densely hairy below, sparsely hairy above. Its leaflets are greenish, yellowish or greenish-brown when dried, and 7–19 by 3.5–9 cm. Leaflets have smooth and raised midribs and are velvety below.
Flowers	Its male flowering shoots are 4–26 cm long, while its female flowering shoots are 1.5–10 cm long. Its slender and hairy flowers are 12 mm long.
Fruits	Its oblong or flattened-round fruit is 2–3 by 1–1.5 cm, and usually contains 1 seed. The pyrene (seeds within the stony inner fruit wall) is slightly curved. The tip of the fruit has 3 protrusions.
Uses and Folklore	It has horticultural value because of its attractive foliage. The timber is used to construct houses and is resistant against insects.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M., 1972. Burseraceae. *Tree Flora of Malaya*, **1**: 121−155. Kochummen, K. M., 1995. Burseraceae. *Tree Flora of Sabah and Sarawak*, **1**: 45−100. Leenhouts, P. W., C. Kalkman & H. J. Lam, 1951. Burseraceae. *Flora Malesiana*, Series I, **5**: 209−296. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Canthium glabrum Blume: a, opposite leaves; b, close-up of stem; c, plant roots that are partially exposed; d, close-up of its leaf (upper side); e, green unripe fruits. Scale bars = 2 cm (b), 10 cm (c), 5 cm (d), 3 cm (e). (Photographs by: Holly Joy Siow May-Ping [a–c] and Ang Wee Foong [d, e]).

Scientific Name	*Canthium glabrum* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Canthium*, from the Malabar plant name, *kanti*; Latin *glabra*, without hairs, referring to the plant body of this species
Synonyms	*Canthium carinatum* Pierre ex Pit.; *Canthium glabrum* Blume var. *pedunculatum* Pit.; *Plectronia glabra* (Blume) Benth. & Hook.f. ex Kurz; *Plectronia glabra* (Blume) Koord. & Valeton
Common Name	English: green coffee
Scientific Family Name	Rubiaceae
Common Family Name	coffee family
Origin	Indochina, Malaysia, Singapore, and Java
Growth Form	It is an evergreen tree up to 25 m tall, with a main stem, and lateral-growing branches. A pale pink or reddish, watery gum is exuded from injured plant parts.
Habitat	It grows in lowland to montane forests. It occurs locally in vicinity of Bukit Kallang, MacRitchie Reservoir, Nee Soon Swamp Forest, and the Seletar area.
National Conservation Status	Endangered
Foliage	Its opposite, stalked leaves have leathery leaf blades that are egg-shaped, 7–18 by 3–9 cm, and tapering broadly to the tips, with rounded bases. The leaves have interpetiolar stipules.
Flowers	Its flowers are white-yellow-purplish, about 1 cm wide, and found singly or in stalked clusters at the leaf axils.
Fruits	Its fruits are green ripening bluish to purplish, and up to 3.2 by 2.5 cm. They are found singly, or few in a cluster. Its brownish seed is up to 2.5 cm long, flattened on one side, and keeled on the other, resembling the chicken breast-bone.
Uses and Folklore	The plant has horticultural potential as a park tree.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Van Balgooy, M .M. J., 1998. Rubiaceae. *Malesian Seed Plants*, **2**: 234–235. Wong, K. M., 1989. Rubiaceae. *Tree Flora of Malaya*, **4**: 324−425.

Caryota mitis Lour.: a, bipinnate leaf; b, close-up of its distinctive jagged leaflets, seen here on a sapling; c, its round fruits are green ripening red to yellow; d, close-up of its green still-developing fruits. Scale bars = 50 cm (a), 2 cm (b), 5 cm (c), 1 cm (d). (Photographs by: www.NatureLoveYou.sg [a–c] and Ang Wee Foong [d]).

Scientific Name	*Caryota mitis* Lour.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *Caryota*, used by the Greek physician Dioscorides for a date palm; Latin *mitis*, gentle, mild, bland, without spines, probably referring to the smooth, fish-tail like leaves
Synonyms	*Caryota furfuracea* Blume ex Mart.; *Caryota griffithii* Becc.; *Caryota griffithii* Becc. var. *selebica* Becc.; *Caryota javanica* Zipp. ex Miq.; *Caryota nana* Linden; *Caryota propinqua* Blume ex Mart.; *Caryota sobolifera* Wall. ex Mart.; *Caryota sobolifera* Wall.; *Caryota speciosa* Linden; *Drymophloeus zippellii* Hassk.; *Thuessinkia speciosa* Korth.
Common Names	English: fishtail palm; Malay: tukus, dudok
Scientific Family Name	Arecaceae (also Palmae)
Common Family Name	palm family
Origin	Myanmar, Andaman and Nicobar Islands, Thailand, Laos, Cambodia, Vietnam, Peninsular Malaysia, Singapore, Sumatra, southeast China, Hainan, Borneo, Java, Sulawesi, and the Philippines
Growth Form	It is a clumping palm up to 4 m tall.
Habitat	It grows in lowland and secondary forests. It occurs locally in Nee Soon Swamp Forest and many other forest patches.
National Conservation Status	Common
Foliage	Its large, stalked, bipinnate leaves are 1–4 by 0.9 m, and have secondary leaflets with blades that are fish-tail like, and fan-like, terminal leaflets. The leaves are soft, dry and covered with dense wooly hairs when young.
Flowers	Its branched flower clusters are 30–60 cm long, and developing stepwise from the tip of the trunk downwards to the bottom of the trunk in the angles of the leaves. The male flowers have oblong, violet petals while those of the female flowers are egg-shaped and purple.
Fruits	Its round fruits are green ripening red to yellow, and about 13 mm wide. The seeds are transversely elliptic.
Uses and Folklore	It is often cultivated as an ornamental plant for screening areas off or as a backdrop. The scrapings from the leaf sheath and rest of the leaf can be used as tinder.

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Keng, H., S. C. Chin & H. T. W. Tan, 1998. *The Concise Flora of Singapore. Volume II: Monocotyledons*. Singapore University Press & National Parks Board, Singapore. 215 pp.

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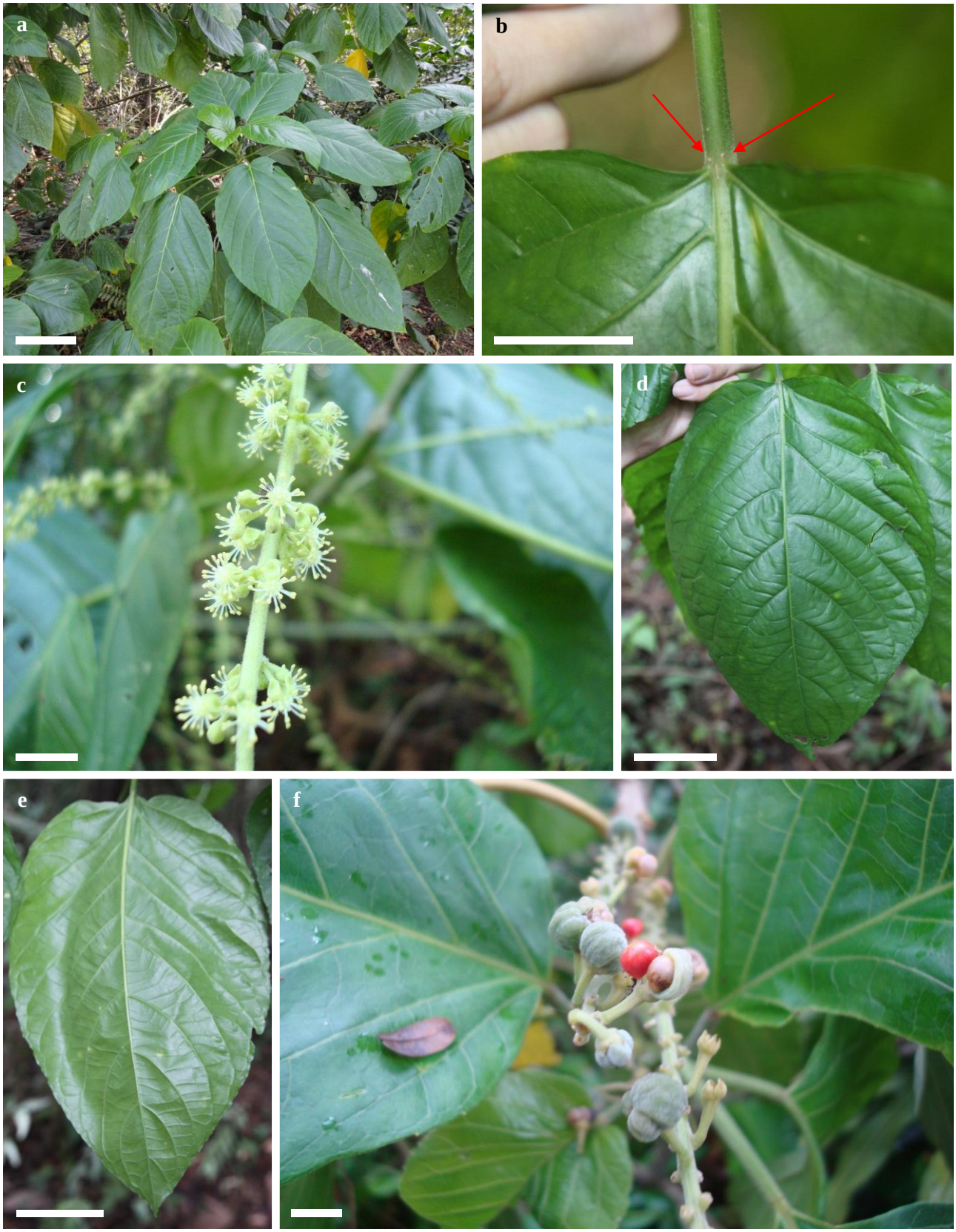
Wee, Y. C., 2003. *Tropical Trees and Shrubs: A Selection for Urban Plantings*. Sun Tree Publishing Limited, USA. 393 pp.

Cinnamomum iners Reinw. ex Blume: a, opposite leaf arrangement; b, close-up of its light yellow flowers and buds; c, dark green upper surface of the leaf; d, greyish green undersurface of leaf, showing three distinct, longitudinal veins; e, red young leaves before turning green; f, shiny black oblong fruits. Scale bars = 2 cm (a, c, e), 1 cm (b, f), 10 cm (d). (Photographs by = www.NatureLoveYou.sg [a, b, e], Koh Choon Yen [c, d], and Hugh Tan Tiang Wah [f]).

Scientific Name	*Cinnamomum iners* Reinw. ex Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *Cinnamomum*, name for cinnamon; Latin *iners*, inactive; a reference to the inert tissues of the plant
Synonyms	*Cinnamomum aromaticum* Zoll.; *Cinnamomum curtisii* Lukman.; *Cinnamomum gracile* Miq.; *Cinnamomum griffithii* Meisn.; *Cinnamomum iners* Reinw. var. *angustifolium* Ridl.; *Cinnamomum manillarum* Lukman.; *Cinnamomum pseudosintok* Miq.; *Cinnamomum rauwolfii* Blume; *Cinnamomum reinwardtii* Miq.; *Laurus caryophyllata* Reinw. ex Meisn.; *Laurus iners* Reinw. ex Nees; *Laurus malabathrica* Roxb.; *Laurus malabathrum* Wall.; *Laurus malabatrum* Lam.; *Persea nitida* Spreng.
Common Names	English: clove cinnamon, wild cinnamon; Malay: kayu manis hutan, kayu teja, medang kemangi, teja badak, teja lawing, ilavangkam, kattukkaruva, kattukkaruvappattai, taalica pattiri; Chinese: 大叶桂 (dà yè guì)
Scientific Family Name	Lauraceae
Common Family Name	cinnamon family
Origin	India, Sri Lanka, Indonesia, Myanmar, Indochina, Malaysia, and Singapore
Growth Form	It is usually an evergreen tree up to 20 m tall with a dense, bushy, dull green, and round crown. The tree can be easily noticed when the reddish-pink, young foliage develops a few times a year.
Habitat	It grows in low-lying, damp, open country, secondary forests, and sometimes tropical rainforests, up to 1,000 m in altitude. It occurs locally in Changi, Nee Soon Swamp Forest, Pulau Ubin and may other sites.
National Conservation Status	Common
Foliage	Its opposite, stalked leaves possess leathery leaf blades that are narrowly oblong, and 7.6–30 by 2.5–9 cm, with upcurled margins, and three distinct, longitudinal veins. When young, its leaves appear reddish-pink, then cream, and turn green when mature. The crushed leaves and bark smell faintly of cinnamon, hence its common name.
Flowers	Its apetalous flowers are unpleasant-smelling, creamy white to light yellow, and develop in loose terminal shoots of 10–25 cm long.
Fruits	Its 1-seeded fruits are shiny black, oblong berries, up to 1.5 by 1 cm, seated on a cup-like calyx. When crushed, they smell like a mixture of lime and cinnamon, and stain fingers purple.
Uses and Folklore	The wood is used for cabinet work, constructing houses, making fragrant joss sticks, and mosquito coils. The bark is used as an inferior substitute for cinnamon, and spice in cooking curries. The leaves alone are used as a poultice for rheumatism, while its juice is used as an antidote for Upas tree (*Antiaris toxicaria*) poisoning. Confectionery and sweets are flavoured using oil distilled from the leaves. The roots alone, or together with the leaves, are boiled, and the decoction is taken as post-labour tonic, and to treat fever. The fruits are edible.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Li, X., J. Li & H. van der Werff, 2008. *Cinnamomum* Schaeffer. *Flora of China*, **7**: 166–187. http://flora.huh.harvard.edu/china/PDF/PDF07/Cinnamomum.pdf. (Accessed 21 Sep.2010). Tan, H. T. W. & K. S. Chua, 2003. *Growing at Your Doorstep: 35 Native Plants of Singapore. 2nd Edition.* Singapore Environment Council, Singapore. 99 pp. Wee, Y. C., 2003. *Tropical Trees and Shrubs. A Selection for Urban Plantings.* Sun Tree Publishing Limited, USA. 393 pp.



Claoxylon indicum (Reinw. ex Blume) Hassk.: a, spirally arranged, long-stalked leaves; b, a pair of small petiolar glands near the leaf blade base (arrowed); c, close-up of flowers; d, upper surface of an egg-shaped leaf blade; e, undersurface of leaf blade; f, whitish green capsules containing round seeds embedded in red pulp. Scale bars = 10 cm (a), 2 cm (b), 1 cm (c, f), 5 cm (d, e). (Photographs by: www.NatureLoveYou.sg [a, c, f] and Koh Choon Yen [b, d, e]).

Scientific Name	*Claoxylon indicum* (Reinw. ex Blume) Hassk.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *klan*, break; Greek, *xulon*, wood; Latin *indicum*,from India, referring to one of the localities in which this species is naturally distributed
Synonyms	*Claoxylon caerulescens* Ridl.; *Claoxylon indicum* (Reinw. ex Blume) Hassk. f. *gracilius* J.J.Sm.; *Claoxylon indicum* var. *macrophyllum* (Hassk.) Müll.Arg.; *Claoxylon indicum* var. *spathulatum* Müll.Arg.; *Claoxylon macrophyllum* Bojer; *Claoxylon macrophyllum* Hassk.; *Claoxylon minus* (Blume) Hassk.; *Claoxylon molle* (Blume) Miq.; *Claoxylon parviflorum* Hook. & Arn.; *Claoxylon polot* Merr.; *Croton halecum* Roxb.; *Croton pigmentarius* Noronha; *Croton tabacifolius* Geiseler; *Erytrochilus indicus* Reinw. ex Blume; *Erythrochilus minor* Blume; *Erythrochilus mollis* Blume; *Niota globosa* Blanco.
Common Names	Chinese: Malay: jarak kayu; 白桐树 (bái tóng shù)
Scientific Family Name	Euphorbiaceae
Common Family Name	rubber tree family
Origin	India to south China, and Thailand to New Guinea (including Singapore)
Growth Form	It is a big shrub or small tree up to 12 m tall, but in Singapore, it is usually only 3–4 m tall. It has an egg-shaped and rather open crown, with sparse branching. It is softly hairy all over.
Habitat	It grows in coastal habitats, and secondary forests below 1,500 m in altitude. Locally, it is present on Bukit Panjang, Grange Road, Mt. Sinai Road, Nee Soon Swamp Forest, Venus Drive, and many other sites.
National Conservation Status	Common
Foliage	Its spirally arranged, long-stalked leaves possess papery leaf blades that are bright green but bright yellow when dried, egg-shaped, 9–27 by 5–20 cm, and softly velvety on its undersides, with heart-shaped bases. The amount of hair and form of its leaves vary greatly.
Flowers	Its small apetalous male flowers are about 5 mm wide, and found in flowering shoots up to 40 cm long. Its apetalous female flowers are solitary, and also found in shoots up to 20 cm long.
Fruits	Its fruits are 3-lobed capsules, 7–8.5 mm wide, and pale green when ripe, with soft, short, grey hairs. They contain somewhat round seeds embedded in red pulp.
Uses and Folklore	The young leaves are used to make sauce or eaten as steamed vegetables. The leaves may be used as fish food. The leaves have a laxative effect, and various diseases can be treated by taking a decoction of them. Asthma can also be treated using a poultice of the leaves and pieces of bark. It is occasionally cultivated.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Jansen, P. C. M., 1999. *Claoxylon indicum* (Reinw. ex Blume) Hassk. In: de Guzman, C. C. & J. S Siemonsma (eds.), *Proseabase*. PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia. http://www.proseanet.org/prosea/e-prosea_detail.php?frt=&id=513. (Accessed 21 Sep.2010). Qiu, H. & M. G. Gilbert, 2008. *Claoxylon* A. Jussieu. *Flora of China*, **11**: 245–246. http://flora.huh.harvard.edu/china/PDF/PDF11/Claoxylon.pdf. (Accessed 21 Sep.2010). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp.

Clerodendrum villosum Blume: a, upper crown; b, close-up of leaf lower surface, showing the palmate whitish veins that radiate outwards from the leaf blade base; c, white-petalled flowers; d, close-up of its shiny black, pulpy and round fruits. Scale bars = 10 cm (a), 5 cm (b), 2 cm (c), 1 cm (d). (Photographs by: www.NatureLoveYou.sg [a, c, d] and Holly Joy Siow May-Ping [b]).

Scientific Name	*Clerodendrum villosum* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kleros*, chance; Greek *dendron*, a tree, supposedly a reference to the variable medicinal efficacies of the plants in this genus; Latin *villosum*, covered with soft hairs, a reference to the hairs found on this plant
Synonyms	*Clerodendrum ferrugineum* Turcz.; *Clerodendrum infortunatum* Dennst.; *Clerodendrum molle* Jack; *Clerodendrum velutinum* B.Thomas
Common Names	Malay: capah, cempening, kasap, kasap jantan, labu-labu, pecah periuk babi, tapak kerbau; Chinese: 绢毛大青 (juàn máo dà qīng)
Scientific Family Name	Lamiaceae
Common Family Name	mint family
Origin	India to Myanmar, Indochina, Sumatra, Thailand, Peninsular Malaysia, Singapore, Java, Borneo, and the Philippines
Growth Form	It is a shrub or small tree up to 2 m tall, and entirely covered with soft, often thick, velvety, white hairs.
Habitat	It grows along forest margins, in open countries, villages, and waste places, up to a 900-m altitude. It occurs locally in Nee Soon Swamp Forest, in the vicinity of Old Upper Thomson Road, Pulau Tekong, Upper Seletar Reservoir and some other sites.
National Conservation Status	Vulnerable
Foliage	Its opposite, stalked leaves have papery leaf blades that are light green, mostly heart-shaped, and 7–29 by 5–21 cm, with short tips. Leaf blades are hairy below, and slightly hairy above.
Flowers	Its white, 1.3 cm-wide flowers grow in loose clusters, at the branch tips, with shoots up to 31 cm long.
Fruits	Its pulpy, shiny black fruits are round and 8–10 mm wide. They are also seated on a fleshy, star-like, white, cup-like structure formed by the persistent sepals.
Uses and Folklore	The bark is eaten as a betel nut substitute. Poison from darts can be removed using the leaves. It is occasionally cultivated as an ornamental shrub.

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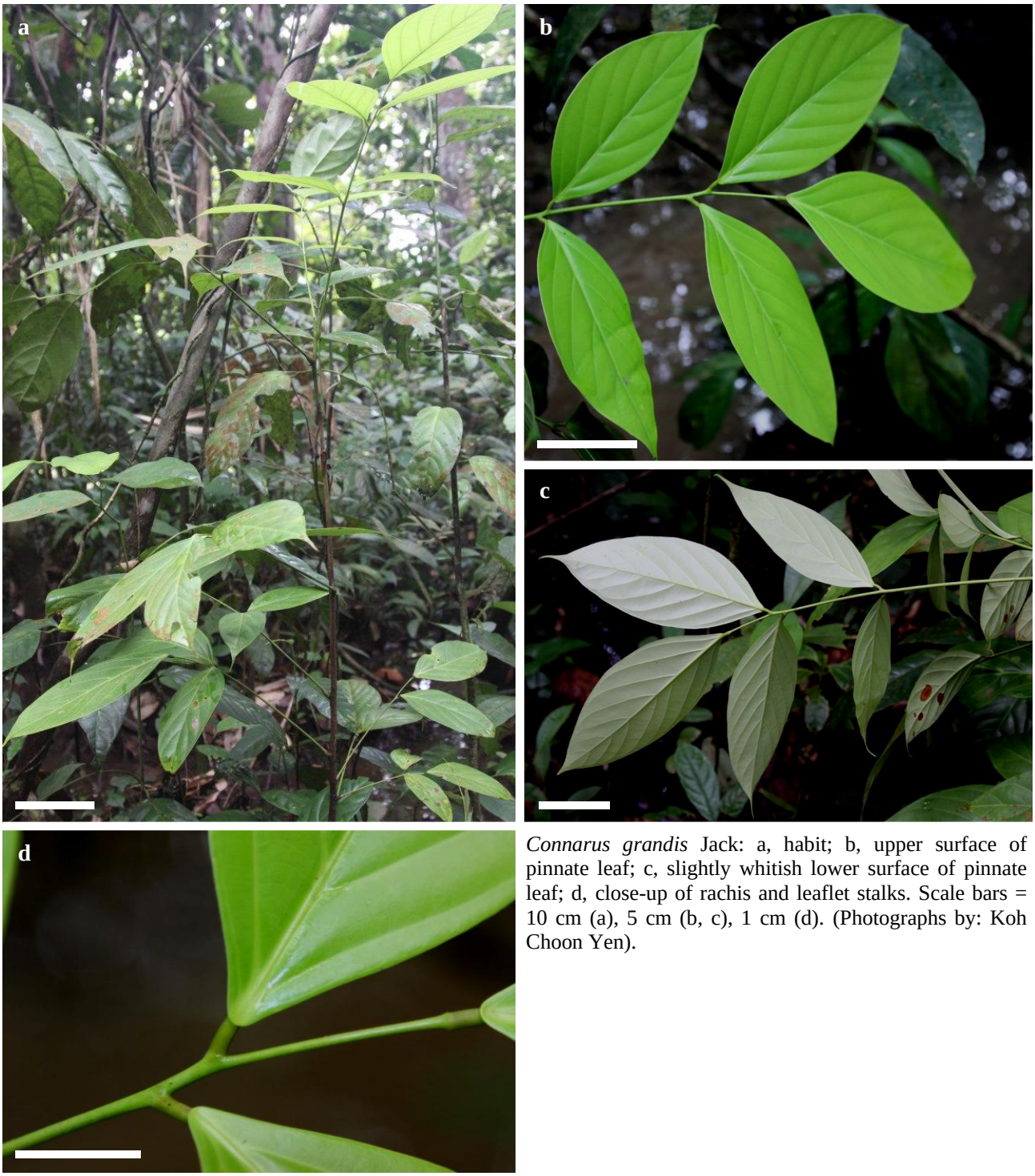

Connarus grandis Jack: a, habit; b, upper surface of pinnate leaf; c, slightly whitish lower surface of pinnate leaf; d, close-up of rachis and leaflet stalks. Scale bars = 10 cm (a), 5 cm (b, c), 1 cm (d). (Photographs by: Koh Choon Yen).

Scientific Name	*Connarus grandis* Jack
Main Group Keys that Apply	Climbers; Trees and Shrubs
Etymology	Greek *konaros*, a Greek plant name; Latin *grandis*, large, probably a reference to this plant's size
Synonyms	*Anisostemon trifoliatus* Turcz.; *Connarus diversifolius* (Hassk.) Scheff. ex Backer; *Connarus ellipticus* King; *Connarus lunulatus* Schellenb.; *Connarus polyanthus* Planch.; *Connarus rolfei* Vidal; *Connarus trifoliatus* (Turcz.) Rolfe; *Connarus villosus* Planch.; *Erythrostigma diversifolia* Hassk.; *Erythrostigma ellipticum* Zoll.
Common Name	–
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Sumatra, Peninsular Malaysia, Singapore, West Java, Borneo, the Philippines, and Talaud Island
Growth Form	It is a large liana, rarely a shrub or small tree. The branches are hairless and sometimes bear prominent lenticels.
Habitat	It grows in primary, secondary and mossy forests, along edges and open areas, along river banks, and on swampy soils, up to a 1,400-m altitude. It is known locally from Bukit Timah Nature Reserve, Bukit Mandai, and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked pinnate leaves have 1–2 pairs of alternate leaflets and the terminal leaflet is occasionally absent. Leaf stalks are swollen at base. The thinly papery to thinly leathery leaflet blades with 5–10 veins are oblong-egg-shaped to lance-shaped-oblong, and 5.5–27 by 3.5–12.5 cm.
Flowers	Its up to 35 cm long inflorescences are covered with yellowish grey hairs. The white, pink or cream-coloured flowers are sessile and bisexual. The petals are dotted with red glands.
Fruits	Its fruits are drop-shaped and 3.5–4 cm wide. Its woody fruit wall is smooth and hairless on the outside but covered with dense reddish brown hairs inside.
Uses and Folklore	A decoction of bark is given to treat asthma and other chest complains.
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Connarus semidecandrus Jack: a, habit; b, opposite arrangement of its leaflets; c, close-up of upper surface of its pinnate leaf; d, the leaf stalk is proximally swollen. Scale bars = 10 cm (a, b), 5 cm (c), 1 cm (d). (Photographs by: Teo Siyang [a] and Tan Siu Yueh [b–d]).

Scientific Name	*Connarus semidecandrus* Jack
Main Group Keys that Apply	Climbers; Trees and Shrubs
Etymology	Greek *konaros*, a Greek plant name; Latin *semi*, half; Latin *decandrus*, with 10 stamens
Synonyms	*Connarus amplifolius* Pierre; *Connarus balsahanensis* Elmer; *Connarus borneensis* Merr.; *Connarus ellipticus* Schellenb.; *Connarus floribundus* Wall. ex Hook.f.; *Connarus furfuraceus* Blume; *Connarus gaudichaudii* (DC.) Planch.; *Connarus gibbosus* Wall. ex Planch.; *Connarus gracilis* Bakh.f.; *Connarus griffithii* Hook.f.; *Connarus jackianus* Schellenb.; *Connarus mekongensis* Pierre; *Connarus moluccanus* Zipp. ex Blume; *Connarus mutabilis* Blume; *Connarus neurocalyx* Planch.; *Connarus nigropunctua* Gagnep.; *Connarus nitidus* Hassk.; *Connarus obtusifolius* Planch.; *Connarus pyrrhocarpus* Miq.; *Connarus quocensis* Pierre; *Connarus semidecandrus* Jack var. *gaudichaudii* (DC.) Fosberg; *Connarus wallichii* Planch.; *Omphalobium gaudichaudii* DC.
Common Name	–
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Andaman Islands, Myanmar, South Indo-China, Thailand, Peninsular Malaysia, Singapore, Micronesia, and Melanesia
Growth Form	It is a large liana, climbing shrub or small tree with branches growing up to 10 cm thick. The branches are hairless, except the younger parts that are densely reddish brown-hairy. The branches gradually develop little protuberances and lenticels over time.
Habitat	It grows in primary and secondary forests, along edges, and open areas, along the beach, in thickets and lalang fields, on dry and swampy soils, on granite, and limestone up to 1,100 m in altitude. It is known locally from Bukit Timah Nature Reserve, Bukit Mandai, Changi, Mandai Forest, Nee Soon Swamp Forest, Seletar, Tuas, and the Western Catchment Area.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked, pinnate leaves have 1–5 pairs of opposite leaflets and a terminal leaflet. The leaf stalks are proximally swollen. The papery to thinly leathery elliptic to lance-shaped, leaflet blades have 4–12 veins and are 4–25 by 2–9 cm.
Flowers	Its much-branched, up to 35 cm long flowering spikes are at branch tips or in the upper leaf-axils. The white-tinted, pink flowers are bisexual and smell of hay and meadowsweet. Both the sepals and petals are dotted with red glands.
Fruits	Its fruits are pear-shaped or semi-flattened round, and 1–2 cm wide. Its seeds are black and the aril yellow.
Uses and Folklore	The plant was used for poulticing gatherings, and the leaves boiled and eaten.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Goh, M. W. K. & H. T. W. Tan, 2000. *The Angiosperm Flora of Singapore: Connaraceae*. Singapore University Press, The National University of Singapore and National Parks Board, Singapore. 32 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Kochummen, K. M., 1978. Connaraceae. *Tree Flora of Malaya*, **3**: 47−52. Leenhouts, P. W., 1950. Connaraceae. *Flora Malesiana*, Series I, **5**: 495−541. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Cratoxylum arborescens (Vahl) Blume: a, the trunk bark is ridged and fissured with papery scales; b, tree crown; c, dried leaves; d, close-up showing its red flowers. Scale bars = 10 cm (a), 2 cm (c), 1 cm (d). (Photographs by: www.florasingapura.com).

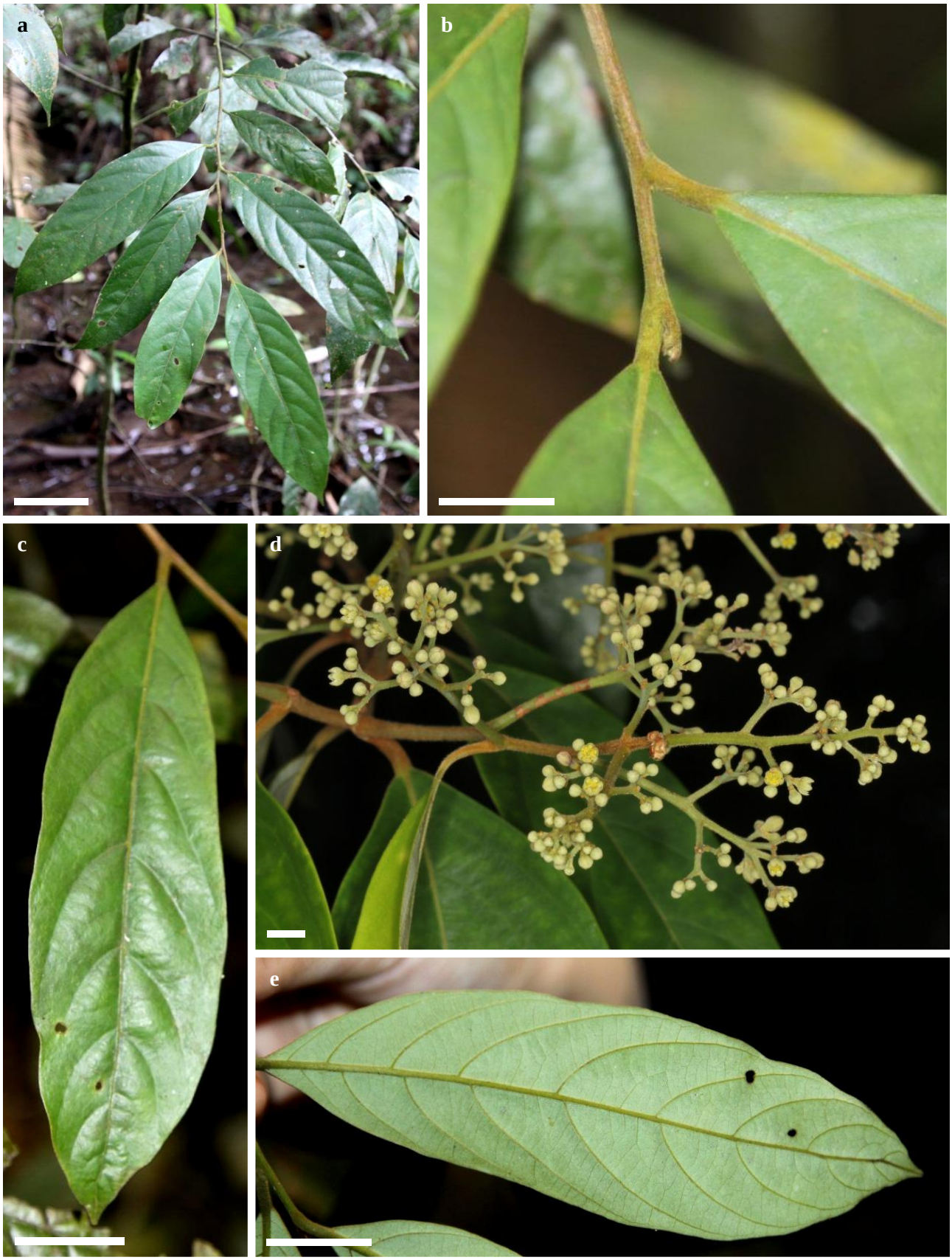
Scientific Name	*Cratoxylum arborescens* (Vahl) Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kratos*, strength; Greek *xulon*, wood, referring to the strong timber; Latin *arborescens*, like a big tree, referring to the habit of this species
Synonyms	*Cratoxylum arborescens* (Vahl) Blume var. *miquelii* King; *Cratoxylum cuneatum* Miq.; *Hypericum arborescens* Vahl
Common Names	Malay: geronggong, geronggang
Scientific Family Name	Hypericaceae
Common Family Name	geronggang family
Origin	Myanmar, Sumatra, Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 46 m tall with rounded, dull, and small-leafed crown. Its warm brown bark is ridged and fissured with papery scales. Its scaly twigs are prominently angled to flattened. Its stipular scars are prominent as a convex or pyramidal line. The plant produces reddish-brown sap. Saplings have thorny stems.
Habitat	It grows in lowland dryland and peat swamp forests, up to a 1,700-m altitude. It occurs locally in Bukit Mandai, Bukit Timah Nature Reserve, Changi, Jurong Road, Nee Soon Swamp Forest, Seletar Reservoir, Tanjong Gul, Tengeh and Upper Peirce Reservoir.
National Conservation Status	Vulnerable
Foliage	Its opposite, stalked leaves possess thickly leathery to leathery leaf blades that are elliptic or drop-shaped-oblong to drop-shaped-lance-shaped, 5–13.5 by 2–6.4 cm, and with minute gland-dots beneath. Its midrib is sunken above and raised below. Its secondary veins are numerous and faint or rather indistinct. The secondary veins join near leaf blade margin to form an intramarginal vein.
Flowers	Its flowering shoots are 7.5–25.5 cm long. Its crimson flowers are small, approximately 8.5 mm wide.
Fruits	Its fruit is a capsule, 7–10.2 mm long, and covered for two-thirds of its length by the sepals. Each valve of the capsule contains 10–18 winged seeds. The seeds are released when the ripe fruit splits.
Uses and Folklore	It is a source of timber.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M., 1973. Hypericaceae. *Tree Flora of Malaya*, **2**: 248−252. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp.

Cratoxylum cochinchinense (Lour.) Blume: a, crown; b, opposite leaves; c, close-up of crimson flowers and buds, with spider web attached to the right bottom; d, green fruits that will gradually turn into brown; e, close-up of an opening flower; f, peeling trunk bark. Scale bars = 5 m (a), 2 cm (b, c), 1 cm (d, e), 10 cm (f). (Photographs by: www.NatureLoveYou.sg [a–d], Ang Wee Foong [e] and www.florasingapura.com [f]).

Scientific Name	*Cratoxylum cochinchinense* (Lour.) Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kratos*, strength; Greek *xulon*, wood, referring to the strong timber; Latin *cochinchinense*, of or from Cochinchina (now known as southern Vietnam), referring to a locality in the natural distribution of this species
Synonyms	*Ancistrolobus ligustrinus* Spach; *Cratoxylum biflorum* (Lam.) Turcz.; *Cratoxylum chinense* (Hance) Merr.; *Cratoxylum hypoleuca* Elmer; *Cratoxylum lanceolatum* Miq.; *Cratoxylum ligustrinum* (Spach) Blume; *Cratoxylum myrtifolium* Blume; *Cratoxylum petiolatum* Blume; *Cratoxylum polyanthum* Korth.; *Cratoxylum polyanthum* Korth. var. *ligustrinum* (Spach) Dyer; *Cratoxylum wightii* Blume; *Elodea chinensis* Hance; *Elodes chinensis* (Retz.) Hance; *Hypericum biflorum* Lam.; *Hypericum chinense* Retz.; *Hypericum cochinchinense* Lour.; *Oxycarpus cochinchinensis* Lour.; *Stalagmites erosipetala* Miq.
Common Names	English: tree-avens, yellow cow wood; Malay: belucus, derum, kelecus, lenciu, mempat hutan, mempat jantan, mempapit, mempitis, sampat, selencur, selencus, semempat; Chinese: 黄牛木 (huáng niú mù)
Scientific Family Name	Hypericaceae
Common Family Name	geronggang family
Origin	China, Myanmar, Indochina, Thailand, Sumatra, Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a shrub or small tree up to 30 m tall, but in Singapore, it is usually only 10 m or shorter. Its smooth bark flakes away in long strips and is light buff to pale brownish-yellow. Its sap is orange-green. This species has two extreme forms—a shrub or small tree, or a large tree.
Habitat	It grows on well-drained soils in grassland, open woodland, primary or secondary forests, and river banks, up to 500 m in altitude. It occurs locally in Bukit Timah Nature Reserve, Fort Canning Park, Nee Soon Swamp Forest, Sentosa and other sites.
National Conservation Status	Common
Foliage	Its opposite, stalked leaves possess fleshy to papery leaf blades that are egg- or lance-shaped, and 3–13 by 1–4.4 cm, with a narrow base and minute glandular dots beneath. Its midrib is sunken above. Its mature leaf blades are green above, and distinctly covered with a bloom on the grey-green undersides. Young leaf blades are deep purple, then pinkish-brown.
Flowers	Its deep crimson to pink or pinkish-yellow flowers are faintly fragrant, and 1.3–2.5 cm wide. They are usually found in pairs on 5–15 cm-long flowering shoots occurring at branch tips or the leaf axils.
Fruits	Its brown fruits are egg-shaped capsules, 8–13 by 4–5 mm, and covered for two-thirds to three-quarters of its length by the sepals. Its winged seeds are narrowly drop-shaped to egg-shaped or oblong, 6–8 by 2–3 mm, and many per fruit. The seeds are released when the ripe fruit splits.
Uses and Folklore	–
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Li, X., J. Li & P. F. Stevens, 2007. Cratoxylum Blume. *Flora of China*, **13**: 36–38. http://flora.huh.harvard.edu/china/PDF/PDF13/Cratoxylum.pdf. (Accessed 27 Sep.2010). Robson, N. K. B., 1974. Hypericaceae. *Flora Malesiana*, Series I, **8**: 1−30. Tan, H. T. W. & T. Morgany, 2001. *A Guide to Growing the Native Plants of Singapore.* Singapore Science Centre, Singapore. 168 pp. Tan, H., 2008. *Life History of the Archduke* (Lexias pardalis dirteana), *Butterflies of Singapore*. Butterflycircle, Singapore. http://butterflycircle.blogspot.com/2010/02/life-history-of-archduke.html. (Accessed 24 Sep.2010).

Cratoxylum formosum (Jacq.) Benth. & Hook.f. ex Dyer: a, the brown trunk bark is finely ridged and has papery scales; b, close-up of its pink-petalled flowers; c, upper surface of its leaf showing the sunken midrib; d, undersurface of its leaf showing the raised midrib. Scale bar = 10 cm (a), 1 cm (b) 5 cm (c, d). (Photographs by: www.florasingapura.com).

Scientific Name	*Cratoxylum formosum* (Jacq.) Benth. & Hook.f. ex Dyer
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kratos*, strength; Greek *xulon*, wood, referring to the strong timber; Latin *formosum*, beautifully shaped, probably referring to the plant form of this species
Synonyms	*Cratoxylum prunifolium* Dyer; *Elodes formosa* Jack
Common Names	English: pink *mempat*; Malay: derum, geronggang betina, mempapit, mempitis, mempat, mempat hitam, semempat, sepedas bunga; Chinese: 越南黄牛木 (yuè nán huáng niú mù)
Scientific Family Name	Hypericaceae
Common Family Name	geronggang family
Origin	Indochina, Sumatra, Peninsular Malaysia, Singapore, Java, Borneo, Sulawesi, and the Philippines
Growth Form	It is a tree up to 45 m tall. Its ashen or greyish brown bark is relatively finely ridged and papery scaly, compared to *Cratoxylum arborescens*. Its twigs are angled and swollen at the nodes. The plant produces yellow sap. Saplings have thorny stems.
Habitat	It grows in primary and secondary forests, sometimes along forest edge and open area, up to a 600-m altitude. It occurs locally in Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its opposite, stalked leaves possess membranous leaf blades that are broadly to narrowly elliptic, 5–18 by 3–7.5 cm, and with minute glandular dots beneath. Its midrib is sunken above and raised below. Its well-spaced secondary veins are in 7–12 pairs and join near the leaf blade margin to form an intramarginal vein. Young leaves are reddish-pink. Old leaves are shed when they are still green.
Flowers	Its pink-petalled flowers are 1.5–2.5 cm wide. The flowers are often in clusters of 3–5 on leafless twigs.
Fruits	Its fruit is a 13–19 cm long capsule of that is covered for the basal third by the sepals. Its winged seeds are approximately 7.5 mm long. The seeds are released when the ripe fruit splits.
Uses and Folklore	It is cultivated as an ornamental plant. The durability of the wood is disputable, but is has been used for construction, furniture, and indoor fittings. The wood tar can be used to blacken teeth. Fever can be treated by taking a decoction of bark and leaves. A decoction of the roots is given to women as a post-labour tonic.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M., 1973. Hypericaceae. *Tree Flora of Malaya*, **2**: 248−252. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp.

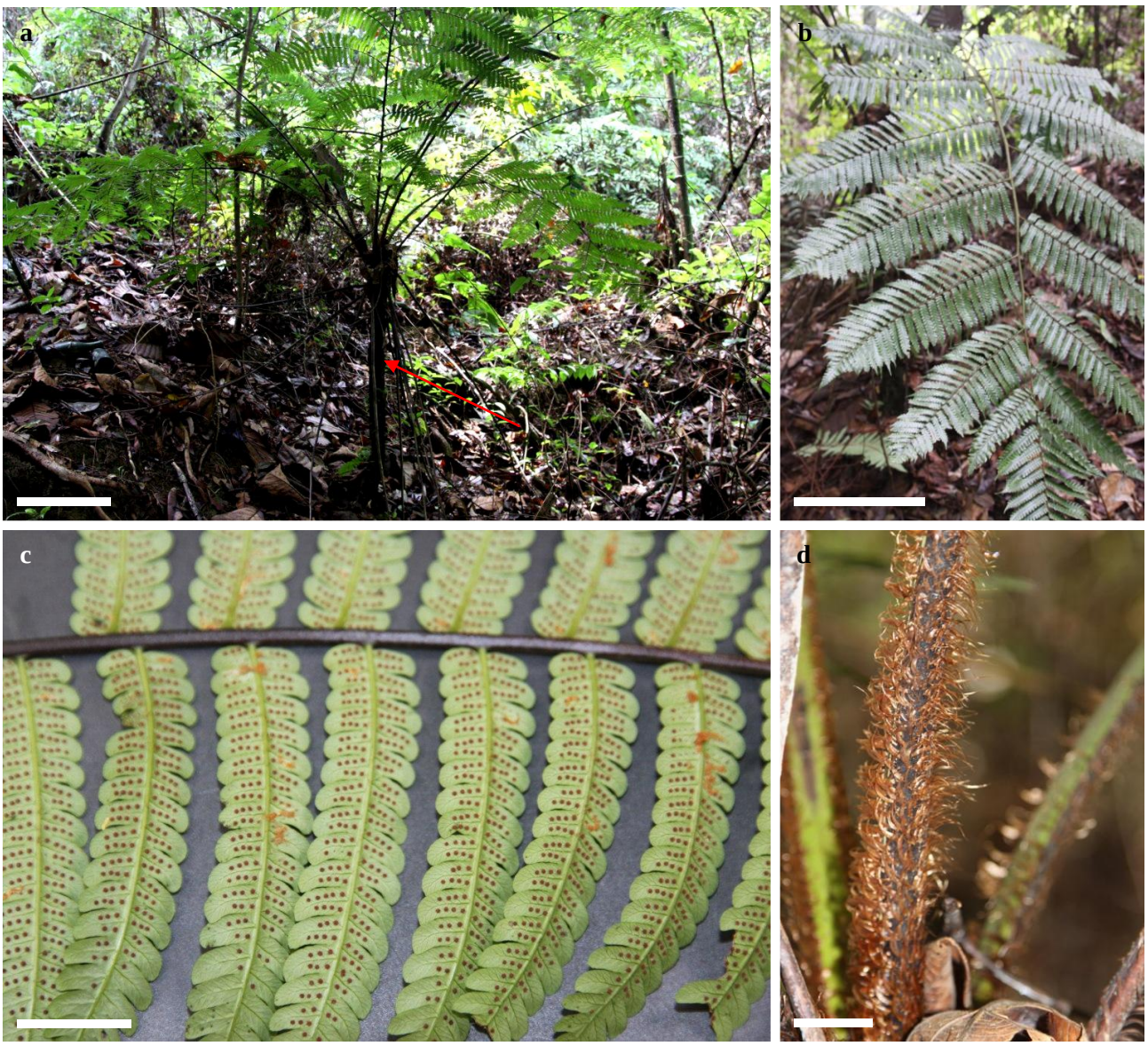


Cryptocarya ferrea Blume: a, it has one leaf per node and the leaves are alternately arranged; b, close-up of the hairy tip of the branch; c, upper surface of leaf; d, inflorescence; e, whitish lower surface of leaf blade. Scale bars = 5 cm (a), 1 cm (b), 2 cm (c–e). (Photographs by: Koh Choon Yen [a–c, e] and Ang Wee Foong [d]).

Scientific Name	*Cryptocarya ferrea* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *kryptos*, hidden; Greek *karyon*, a nut, possibly referring to the fruit being covered by the calyx-tube; Latin *ferreus*, pertaining to iron, referring the rust-coloured hairs on the young plant parts
Synonyms	*Cryptocarya glaucescens* Hassk.; *Cryptocarya tomentosa* Blume; *Cryptocarya tomentosa* Blume var. *rugosa* Gamble
Common Names	Malay: langir tengkawas, medang kuning, medang merah, mempat jantan
Scientific Family Name	Lauraceae
Common Family Name	cinnamon family
Origin	Peninsular Malaysia, Singapore, and Java
Growth Form	It is a tree up to 22 m tall with short buttresses up to 1.5 m high.
Habitat	It grows in lowland to mountain forests, including swamp forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have papery or leathery leaf blades that are oblong to narrowly egg-shaped, and usually 12–19 by 5–8 cm. The white undersurface of its leaf blades is velvety hairy.
Flowers	Its stalkless flowers are greenish-yellow to cream, and grow in loose clusters at the leaf axils or the ends of the leafy twigs.
Fruits	Its fruit is green and ripens purple to black, are egg-shaped to oblong, and are 2.5 by 1.3 cm when dry.
Uses and Folklore	The plant has horticultural potential as a park tree.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M., 1989. Lauraceae. *Tree Flora of Malaya*, **4**: 98−178. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

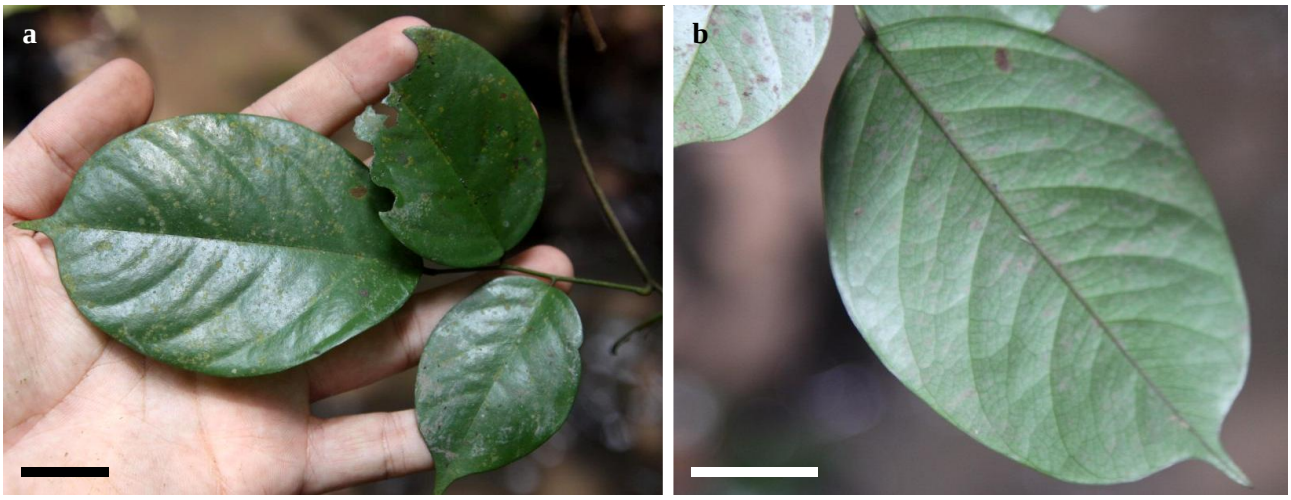
Cyathea latebrosa (Wall. ex Hook.) Copel.: a, habit. Its erect stem is arrowed; b, leaf stalks are shortly spiny; c, close-up of sori. Scale bars = 50 cm (a), 1 cm (b), 6 mm (c). (Photographs by: Ang Wee Foong [a, b] and Hugh Tan Tiang Wah [c]).

Scientific Name	*Cyathea latebrosa* (Wall. ex Hook.) Copel.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Cyathea*, little cup, a reference to the shape of the spore case; Latin *latebrosa*, pertaining to shady places, referring to the habitat preference of this tree fern
Synonyms	*Alsophila latebrosa* Wall. ex Hook.; *Dichorexia latebrosa* (Wall. ex Hook.) C.Presl
Common Name	English: tree fern
Scientific Family Name	Cyatheaceae
Common Family Name	tree fern family
Origin	India, Cambodia, Sumatra, Thailand, Malaysia, and China (Hainan)
Growth Form	It is large, terrestrial fern with a single, erect stem that may grow up to 3 m tall.
Habitat	It grows in lowland forests and hills up to 2,000 m in altitude.
National Conservation Status	Vulnerable
Foliage	Its stalked leaves are huge and bipinnate. Each leaf is about 1.5 m long. The stalks of the leaves are shortly spiny and dark brown. Often, the tough stalks persist even when the leaflets fall off. Tiny, golden brown, lance-shaped to egg-shaped-acute scales, are present along the lower surface of primary leaf veins on the leaflet blades.
Sori	The sori (clusters of sprongia) are indusiate (covered by a membrane). However, the indusial scale is only readily seen upon removal of the sporangia. Short sterile hairs or filaments (paraphyses) are present among the sporangia.
Uses and Folklore	The fibrous stem of the tree fern is a suitable substrate for growing epiphytic plants like orchids.
References	Braggins, John E. & Large, Mark F., 2004. *Tree Ferns*. Timber Press, Inc. 261 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Holttum, R. E. & Allen B. M., 1967. The tree-ferns of Malaya. *The Gardens' Bulletin, Singapore*, **22**: 41–51.



Cyathea squamulata (Blume) Copel.: a, habit (single trunk arrowed); b, close-up of a bipinnate leaf; c, close-up of lower surface of the rachis and fertile leaflets, showing the circular sori; d, close-up of brown scaly leaf stalk base. Scale bars = 10 cm (a), 20 cm (b), 2 cm (c, d). (Photographs by: Koh Choon Yen).

Scientific Name	*Cyathea squamulata* (Blume) Copel.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Cyathea*, little cup, a reference to the shape of the spore case; Latin *squamulata*, with little scales, referring to scales present on the leaf stalk of this fern
Synonyms	*Alsophila squamulata* (Blume) Hook.; *Gymnosphaera squamulata* Blume
Common Name	English: tree fern
Scientific Family Name	Cyatheaceae
Common Family Name	tree fern family
Origin	Sumatra, Peninsular Malaysia, Singapore, West Java, Borneo, and the Sulu Archipelago
Growth Form	It is large terrestrial fern with a single, erect stem that may grow up to 2 m tall.
Habitat	It has been found in moist lowland and secondary forests to about 1,500 m in altitude.
National Conservation Status	Endangered
Foliage	Its stalked leaves are bipinnate. Each leaf is about 1.5 m long. The leaf stalks have dense scales that are firm and medium to dark brown, more dense basally, broader and more spreading on the lower side, and narrower on the upper side. Its main midrib (rachis) is medium brown, with appressed hairs above, and small bristly scales below.
Sori	Its sori (clusters of sporangia) are found near the midvein of blades of the fertile leaflets. They do not cover the whole surface of the leaflets, and are distinct from each other in maturity. Long sterile hairs or filaments (paraphyses) are present among the sporangia.
Uses and Folklore	–
References	Braggins, John E. & Large, Mark F., 2004. *Tree Ferns*. Timber Press, Inc. 261 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Holttum, R. E. & Allen B. M., 1967. The tree-ferns of Malaya. *The Gardens' Bulletin, Singapore*, **22**: 41–51.



Dalbergia pseudo-sissoo Miq.: a, pinnate leaf with three leaflets; lower surface of terminal leaflet. Scale bars = 2 cm. (Photographs by: Li Tianjiao).

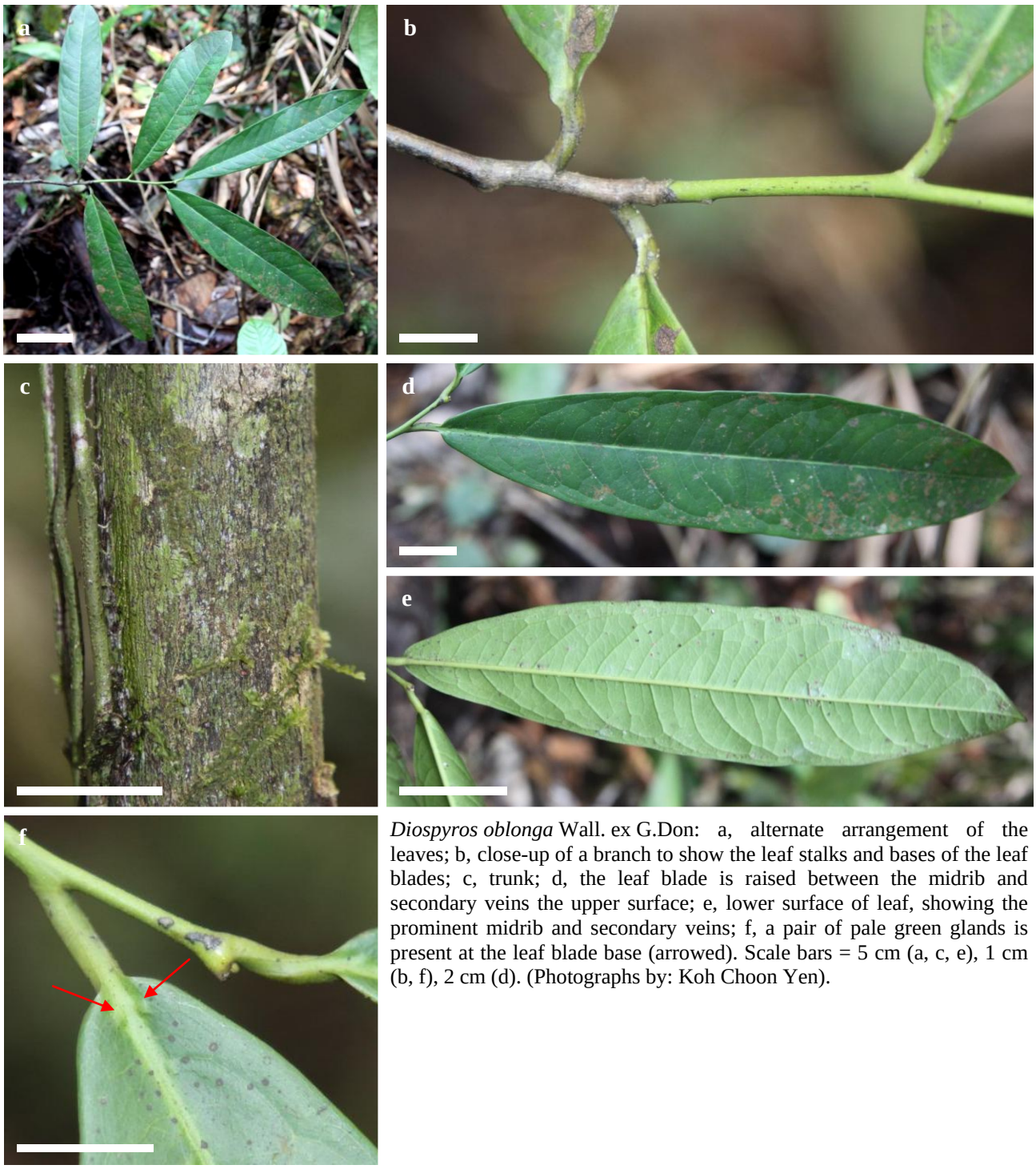
Scientific Name	*Dalbergia pseudo-sissoo* Miq.
Main Group Keys that Apply	Trees and Shrubs; Climbers
Etymology	*Dalbergia*, to commemorate Nicholas Dalberg, Swedish physician and botanist, and his brother Carl Gustav; Latin *pseudo-*, sham- or false-; Bengali *sissoo*, vernacular name for the sissoo tree (*Dalbergia sissoo*)
Synonyms	*Amerimnon championii* (Thwaites) Kuntze; *Amerimnon pseudo-sissoo* (Miq.) Kuntze; *Dalbergia championii* Thwaites; *Dalbergia diversifolia* Miq.; *Dalbergia radiata* Prain; *Dalbergia rostrata* Prain; *Dalbergia sissoo* sensu Miq.
Common Name	English: hornet creeper
Scientific Family Name	Fabaceae
Common Family Name	bean family
Origin	Sri Lanka, southern India, Borneo, and Java
Growth Form	It is a shrub or a woody climber with hooked lateral twigs.
Habitat	It is found in moist areas, between 300–1,200 m in altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Common (listed as *Dalbergia rostrata* Hassk. in Chong et al. [2009])
Foliage	Its alternate, stipulate, pinnate leaves have 1–5 leaflets, each with slightly leathery leaflet blades. Its leaflet blades are egg-shaped, with a sharp tip, 4–10 by 2.5–7 cm, smooth and shiny above, smooth to densely hairy below.
Flowers	Its flowering clusters form on axillary branches. Its flowers have white petals, and are held by a bell-shaped, hairy, calyx which is 3.5–4 mm long.
Fruits	Its slightly hairy, oblong pod is 7.5–10 by 1.8 cm and produces 3 cm-long, oblong seeds.
Uses and Folklore	This climber was used as a rope for elephants to tow logs to be sawed.
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition*. Cambridge University Press. 426 pp. Rudd, V. E., 1991, Fabaceae (Leguminosae), subfamily Faboideae (Papilionoideae). *A Revised Handbook to the Flora of Ceylon*, **7**: 108 – 235. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Dillenia reticulata King: a, prop roots of a mature tree; b, prop roots of a young tree; c, close-up of the upper side of the leaf blade showing the toothed leaf margin; d, secondary veins are prominently raised on the undersurface of leaf blade; e, leaf is curled when it is dried; f, habit of a young individual. Scale bars = 10 cm (a, b), 3 cm (c–e), 50 cm (f). (Photographs by: www.florasingapura.com).

Scientific Name	*Dillenia reticulata* King
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin, *Dillenia*, derived from Johann Jacob Dillenius, a German botanist and physician; Latin, *reticulata*, net-like pattern, probably referring to the pattern of the leaf blade's veins
Synonym	–
Common Names	English: marsh simpoh, stilted simpoh; Malay: simpoh gajah, simpoh jangkang, simpoh paya
Scientific Family Name	Dilleniaceae
Common Family Name	simpoh air family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 30 m tall, with prominent prop and stilt roots and warm brown trunk bark.
Habitat	It grows in lowland and swamp forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spiral, stalked leaves possess leathery leaf blades that are oblong or rather drop-shaped, distinctly velvety below, and 12.5–35.5 by 7.5–23 cm. The leaf blade base is rounded or heart-shaped. The leaf blades are much longer in saplings, being up to 91 cm. The leaf blade margins are finely toothed. Secondary leaf veins are between 16–45 pairs and the veinlets are raised.
Flowers	Its loosely arranged flowering clusters are found at the ends of leafless twigs or with the new leaves, and up to 12.5 cm long. The stalked, yellow flowers are about 6 cm wide.
Fruits	Its fruits are greenish yellow and up to 38 mm wide.
Uses and Folklore	–
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

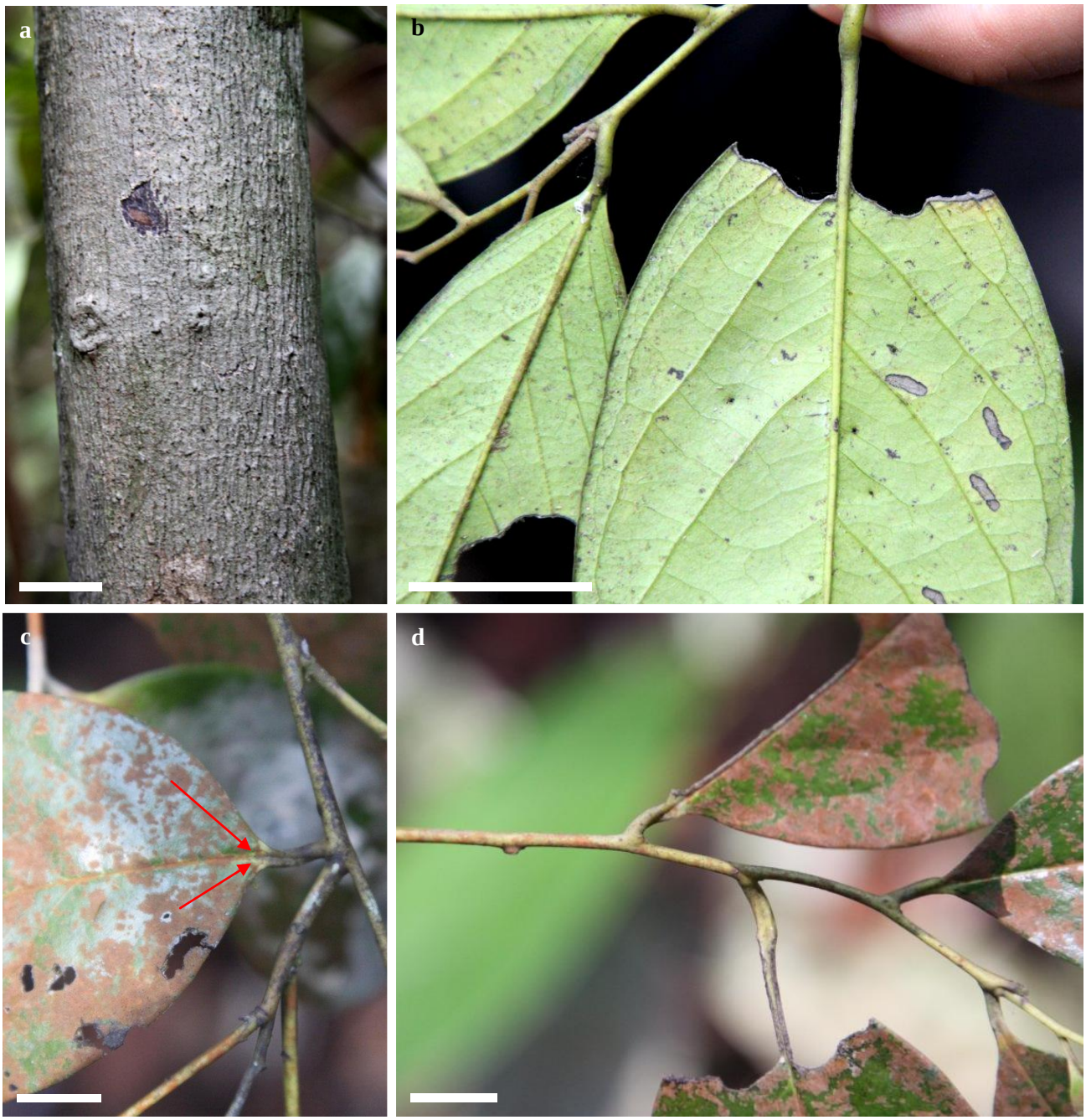
Diospyros coriacea Hiern: a, sapling; b, alternate arrangement of leaves; c, close-up of the lower surface of the leaf blade showing the intramarginal loop formed near the margin; d, the leaf blade is raised between the veins on the upper surface. Scale bars = 10 cm (a, b), 2 cm (c), 5 cm (d). (Photographs by: Koh Choon Yen).

Scientific Name	*Diospyros coriacea* Hiern
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *dios*, divine; Greek *pyros*, wheat, meaning divine wheat or food, referring to the members of this genus with edible fruits; Latin *coriacea*, leathery, referring to the leathery texture of this species' calyx
Synonym	–
Common Name	–
Scientific Family Name	Ebenaceae
Common Family Name	ebony family
Origin	Singapore and Borneo
Growth Form	It is a tree up to 15 m tall.
Habitat	It grows in primary forests. It occurs locally in Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves possess papery leaf blades that are narrowly oblong-egg-shaped and 6.5–15 by 2.3–4.3 cm. Its midrid is sunken, and forms a narrow groove on the upper surface of the leaf. Its secondary nerves tend to loop near the margin, forming intramarginal loops.
Flowers	Its male flowers are found in clusters of up to seven in the leaf axils.
Fruits	Its round fruits are smooth, up to 3.5 cm wide, and seated on a leathery, 4-lobed, cup-like calyx.
Uses and Folklore	The plant has horticultural potential as a park tree. Hardwood of trees from this genus have been used for ornamental carvings.
References	Ng, F. S. P., 2002. Ebenaceae. *Tree Flora of Sabah and Sarawak*, **4**: 29−100. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



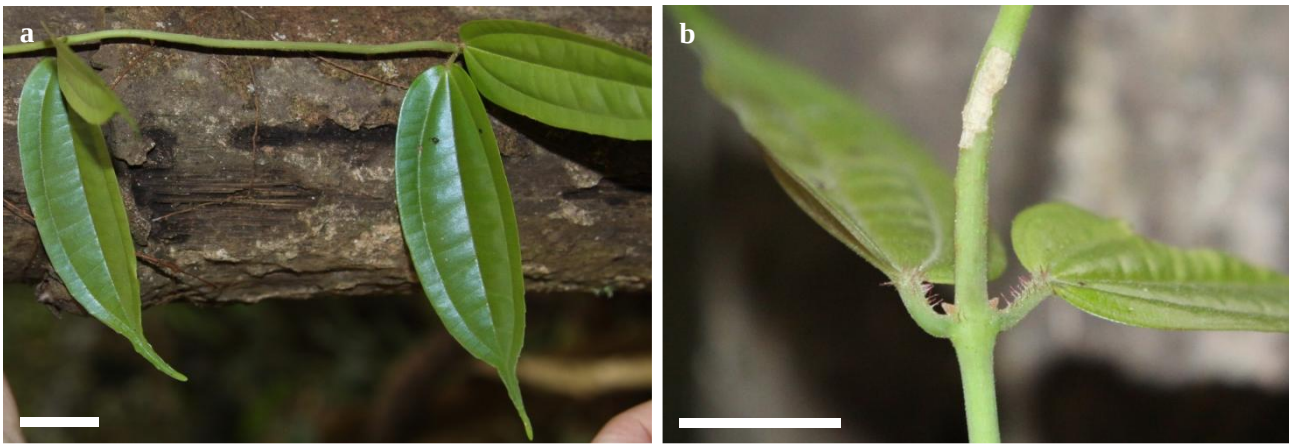
Diospyros oblonga Wall. ex G.Don: a, alternate arrangement of the leaves; b, close-up of a branch to show the leaf stalks and bases of the leaf blades; c, trunk; d, the leaf blade is raised between the midrib and secondary veins the upper surface; e, lower surface of leaf, showing the prominent midrib and secondary veins; f, a pair of pale green glands is present at the leaf blade base (arrowed). Scale bars = 5 cm (a, c, e), 1 cm (b, f), 2 cm (d). (Photographs by: Koh Choon Yen).

Scientific Name	*Diospyros oblonga* Wall. ex G.Don
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *dios*, divine; Greek *pyros*, wheat, referring to the members of this genus with edible fruits; Latin *oblonga*, oblong, referring to shape of the leaf blade
Synonyms	*Diospyros pilosanthera* Blanco var. *oblonga* (Wall. ex G.Don) Ng; *Diospyros sapotoides* Kurz
Common Names	English: Perlis ebony; Malay: komoi, kumoi, kumun
Scientific Family Name	Ebenaceae
Common Family Name	ebony family
Origin	Thailand, Sumatra, Peninsular Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a small to medium-sized dioecious tree up to 24 m tall. Its smooth to fissured trunk bark is grey to black.
Habitat	It grows in lowland and hill forests up to 900 m in altitude. It occurs locally in the Central Catchment Nature Reserve (Bukit Kallang and Nee Soon Swamp Forest).
National Conservation Status	Vulnerable
Foliage	Its alternate, stalked leaves have leathery leaf blades that are oblong and 10.5–33 by 4–13 cm, with pointed apices. Its secondary leaf veins, usually between 9–22 pairs, are more diminished further from the midrib, becoming inconspicuous near the leaf margin. Its midrib is sunken above.
Flowers	Its male flowering clusters are 12 mm long, with many flowers. Its 8 mm-long female flowers form clusters of 1–3 flowers. Both male and female flowers have five petals and sepals.
Fruits	Its densely hairy fruits are egg-shaped, and 2.5 by 2.5 cm. Each of them contains up to 10 seeds.
Uses and Folklore	The hardwood of trees in this genus has been used for ornamental carvings.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ng, F. S. P., 1978. Ebenaceae. *Tree Flora of Malaya*, **3**: 56−94. Ridley, H. N., 1923. *The Flora of the Malay Peninsula. Volume 2*. L. Reeve & Co., Ltd., London. vi + 672 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Diospyros styraciformis King & Gamble: a, trunk; b, the leaf blade base narrows down to the short leaf stalk; c, a pair of glands is found at the leaf blade base (arrowed); d, alternate arrangement of the leaves which show herbivore damage. Scale bars = 2 cm (a, b), 1 cm (c), 5 cm (d). (Photographs by: Koh Choon Yen).

Scientific Name	*Diospyros styraciformis* King & Gamble
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *dios*, divine; Greek *pyros*, wheat, meaning divine wheat or food, referring to the members of this genus with edible fruits; Latin *styrax*, storax tree (*Styrax* species); Latin *forma*, having the form of, referring to the species' fruits resembling those of *Styrax* species
Synonyms	*Diospyros clavipes* Bakh.; *Diospyros sarawakana* Bakh.; *Diospyros styraciformis* King & Gamble var. *sarawakana* (Bakh.) Ng
Common Name	–
Scientific Family Name	Ebenaceae
Common Family Name	ebony family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree that can grow up to 30 m tall, with black, cracked to finely fissured trunk bark.
Habitat	It grows in primary lowland and limestone hill forests, up to a 1,000-m altitude. It occurs locally in the Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), as well as around Chestnut Track and Mandai Road.
National Conservation Status	Vulnerable
Foliage	Its alternate, stalked leaves possess papery to leathery leaf blades that are usually oblong-egg-shaped, and 7.5–18 by 2–10 cm, with their bases narrowed down to the stalk. A pair of glands is often present on the underside of each side of the midrib at the leaf blade base.
Flowers	Its male flowering clusters are found in the leaf's axils, up to 0.5 cm long, and consist of several male flowers each. Its female flowering clusters are up to 2 cm long, and consist of 1–3 female flowers each.
Fruits	Its stalked fruits are round, with a short sharp point, up to 3.5 cm wide, and found in clusters of 1–3 on branchlets. They also contain up to eight seeds each.
Uses and Folklore	Fishes can be stunned using the fruit of this tree. This species has horticultural potential as a park tree.
References	Ng, F. S. P., 1978. Ebenaceae. *Tree Flora of Malaya*, **3**: 56−94. Ng, F. S. P., 2002. Ebenaceae. *Tree Flora of Sabah and Sarawak*, **4**: 29−100. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Dissochaeta gracilis (Jack) Blume: a, upper surface of the tri-nerved leaf blades with slightly toothed margins; b, close-up of the short, hairy leaf stalks. Scale bars = 2 cm (a), 1 cm (b). (Photographs by: Holly Joy Siow May-Ping).

Scientific Name	*Dissochaeta gracilis* (Jack) Blume
Main Group Key that Applies	Climbers
Etymology	Greek *dissochaeta*, double hair or bristle, referring to the anthers; Latin *gracilis*, slender, referring to the plant's habit
Synonym	–
Common Names	English: smooth-leaved Dissochaeta; Malay: akar senduduk
Scientific Family Name	Melastomataceae
Common Family Name	sendudok family
Origin	Southern Thailand, Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a slender climber.
Habitat	It grows on trees along the edges of lowland forests. It occurs locally in the Central Catchment Nature Reserve (Bukit Kallang and Nee Soon Swamp Forest).
National Conservation Status	Vulnerable
Foliage	Its opposite, shortly-stalked leaves have leaf blades that are lance-shaped, narrowly tapering to rather long tips, and 7.6–11 by 3.8–4.6 cm, with rounded bases. Its branches are slender, and ringed at the nodes.
Flowers	Its slender, laxly-branched flowering shoots are about 30 cm long, and found from or near the ends of the stems. Each flower is 6.5 mm long, bell-shaped, and has white petals.
Fruits	Its small fruits are almost round berries, and 4 mm across.
Uses and Folklore	The plant has horticultural potential for its flowers. The leaves are also used medicinally.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Henderson, M. R., 1974. *Malayan Wild Flowers. Dicotyledons.* The Malayan Nature Society, Kuala Lumpur. 478 pp. Maxwell, J. F., 1982. Woody climbing Melastomes in the Malay Peninsula. *Malayan Nature Journal*, **35**: 149–163. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp.

Elaeocarpus ferrugineus (Jacq.) Steud.: a, spiral arrangement of leaves; b, the leaf stalks, midribs and leaf margin are densely brown hairy; c, lower surface of leaf; d, the twig tip is densely reddish-brown hairy. The leaf stalks are swollen at both ends but bent at the distal end (kneed). e, yellowish young leaves. Scale bars = 5 cm (a, e), 2 cm (b, c), 1 cm (d). (Photographs by: Koh Choon Yen [a, c] and www.NatureLoveYou.sg [b, d, e]).

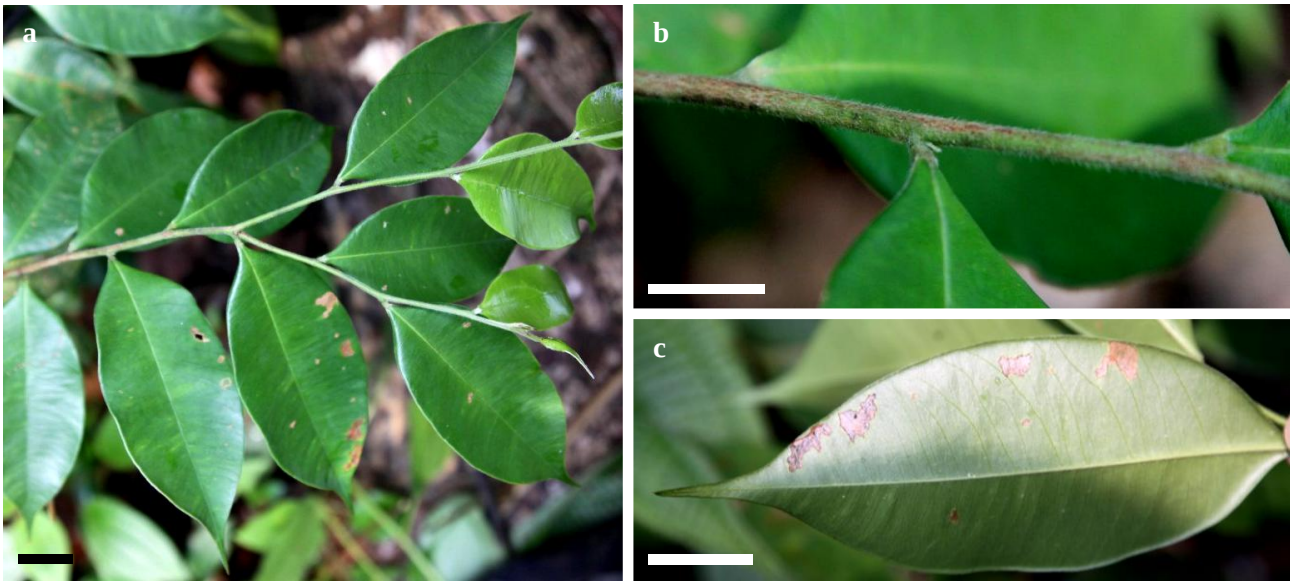
Scientific Name	*Elaeocarpus ferrugineus* (Jacq.) Steud.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *elaia*, oil; Greek *karpos*, fruit, referring to its oily fruit; Latin *ferrugineus*, rusty, alluding to the rust-coloured hairs of this species
Synonyms	*Elaeocarpus borneensis* Knuth; *Elaeocarpus jackianus* Wall. ex King; *Elaeocarpus jackii* F.Muell.; *Monocera ferruginea* Jack
Common Names	English: rusty oil fruit; Malay: cemantung merah, kayu jatek-jatek, kayu seburu, medang asam, medang jentik-jentik, medang manik, medang musang, tampoi tugas
Scientific Family Name	Elaeocarpaceae
Common Family Name	oil fruit family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 31 m tall with a smooth to somewhat cracked trunk bark. Its twigs, leaf stalks, leaf veins and flowering clusters are densely reddish-brown hairy. It may possess small plank-like buttresses.
Habitat	It grows in the lowlands and the sides of mountains up to 1,200 m in altitude. It occurs locally in the Central Catchment Nature Reserve (including Nee Soon Swamp Forest) and the Western Catchment Area.
National Conservation Status	Common
Foliage	Its spirally arranged leaves have thin, leathery leaf blades that are egg-shaped to oblong-egg-shaped, and 10–27 by 6.5–15 cm. Its leaf stalks are swollen at both ends and bent at the top (kneed). Leaf blades are velvety below, and become red upon withering.
Flowers	Its flowering clusters are 3–9 cm long. Its 4-merous bisexual flowers are cream to greenish, and up to 8 mm wide.
Fruits	Its fruits are smooth and egg-shaped, and 6–17 mm wide.
Uses and Folklore	It is a source of timber. Its fruits are edible.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ng, F. S. P., 1989. Elaeocarpaceae. *Tree Flora of Malaya*, **4**: 82−97. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Elaeocarpus stipularis Blume: a, alternate leaf arrangement; b, lower surface of the leaf; c, its stipules (arrowed) are relatively large and prominent. Scale bars = 10 cm (a), 2 cm (b), 1 cm (c). (Photographs by: www.NatureLoveYou.sg).

Scientific Name	*Elaeocarpus stipularis* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *elaia*, oil; Greek *karpos*, fruit, referring to its oily fruit; Latin *stipularis*, having well-developed stipules as in this species
Synonyms	*Elaeocarpus fissistipulus* Miq.; *Elaeocarpus helferi* Kurz ex Mast.; *Elaeocarpus tomentosus* Blume
Common Names	English: benzoin oil fruit; Malay: damak-damak, derumun pelanduk, jambu kelawar, kempening, kepinding, lidah sapi, medang api, medang kelawar, medang merebuk, medang miang, mengkerai hutan, paruh, paruh enggang, pinang kelawar, pinang pergam, pulai pipit, setui tupai
Scientific Family Name	Elaeocarpaceae
Common Family Name	oil fruit family
Origin	Sumatra, Peninsular Malaysia, Singapore, Java, and Borneo
Growth Form	It is a tree that grows up to 18 m tall, with droopy twigs and a smooth to somewhat fissured trunk bark. Its twigs, leaf stalk, undersurface of leaf blades and clusters of flowers are velvety.
Habitat	It grows in lowland and montane forests. It is known locally in the Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Dalvey Road, and Napier Road.
National Conservation Status	Vulnerable
Foliage	Its alternately arranged, stalked leaves have leathery leaf blades that are egg-shaped to elliptic, velvety on the underside and on both sides of the midrib, and 7.5–17 by 2.5–9 cm.
Flowers	Its flowers develop in clusters on flowering shoots of 7.5–17 cm lengths that occur in axils of older leaves, or leaf scars. Its flowers are white, and 7.5–10 mm wide.
Fruits	Its fruits are round or oblong, green, 2–2.5 cm wide.
Uses and Folklore	It is cultivated as an ornamental plant. It can be harvested for timber, and at times used in house building. Its leaves might have medicinal properties.
References	Boo, C. M., K. Omar-Hor & C. L. Ou-Yang, 2006. *1001 Garden Plants in Singapore. 2nd Edition.* National Parks Board, Singapore. 780 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Keng, H., 1990. *The Concise Flora of Singapore*. *Gymnosperms and Dicotyledons*. Singapore University Press, Singapore. 222 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Eleiodoxa conferta (Griff.) Burret: a, they have a short, underground stem so the tall, spiny leaves appear to stick out of the ground; b, leaf stalks are covered with rows of long whitish spines; c, pinnate leaves with linear acuminate leaflets; d, close-up of its flowering spikes. Scale bars = 5 cm (b), 1 cm (d). (Photographs by: Ang Wee Foong [a, c] and Tan Siu Yueh [b, d]).

Scientific Name	*Eleiodoxa conferta* (Griff.) Burret
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek, *eleio*, water; Greek, *doxa*, glory, a reference to which is unknown of; Latin, *conferta*, crowded, referring to its flowering spikes
Synonyms	*Eleiodoxa microcarpa* Burret; *Eleiodoxa orthoschista* Burret; *Eleiodoxa scortechinii* (Becc.) Burret; *Eleiodoxa xantholepis* Burret; *Salacca conferta* Griff.; *Salacca scortechinii* Becc.
Common Name	–
Scientific Family Name	Arecaceae (also Palmae)
Common Family Name	palm family
Origin	Borneo, Peninsular Malaysia, and Singapore
Growth Form	It is a bushy palm up to about 5 m tall, with a short, underground stem so appears stemless.
Habitat	It grows in wet lowland forest, often forming impenetrable thickets. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Vulnerable in the wild; cultivated in urban areas
Foliage	Its pinnate leaves with linear acuminate leaflets are often found in clusters of about 10 or more that emerge from the wet ground, potentially reaching 5 m tall. The leaf stalks are covered with rows of long whitish spines.
Flowers	Its flowering spikes are very much branched. The approximately 0.6 cm-long flowers come in pairs with 1 male and 1 female.
Fruits	Its fruits are drop-shaped, yellow drupes about 2.5 cm long.
Uses and Folklore	The fruit pulp is edible.
References	Ridley, H. N., 1925. *The Flora of the Malay Peninsula. Volume 5*. L. Reeve & Co., Ltd., London. v + 470 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Enkleia malaccensis Griff.: a, upper surface of leaves; b, close-up of a hairy twig; c, lower surface of a leaf blade to show its venation. Scale bars = 1 cm (a, b), 2 cm (c). (Photographs by: Tan Siu Yueh).

Scientific Name	*Enkleia malaccensis* Griff.
Main Group Key that Applies	Climbers
Etymology	Greek, *enklêiein*, referring that the fruit is at the base, surrounded by the split perianth tube; *malaccensis*, from Melaka (Malacca), Malaysia, referring to one locality in its natural distribution
Synonyms	*Enkleia andamanica* (Hutch. ex C.E.Parkinson) N.P.Balakr.; *Enkleia coriacea* Hallier f.; *Enkleia malayana* Griff.; *Enkleia riouwensis* Hallier f.; *Enkleia siamensis* (Kurz) Nevling; *Lasiosiphon scandens* Endl.; *Linostoma scandens* (Endl.) Kurz; *Linostoma scandens* (Endl.) Kurz var. *cambodiana* Lecomte; *Linostoma scandens* (Endl.) Kurz var. *oblongifolia* Lecomte; *Linostoma siamensis* Kurz
Common Names	Malay: akar kareh hitam, akar panas, akar puchong kapur, garu buaja, kapang akar
Scientific Family Name	Thymelaeaceae
Common Family Name	–
Origin	Andaman Islands, Sumatra, Banka, Myanmar, Laos, Cambodia, Peninsular Malaysia, Singapore, Riau Archipelago, and Borneo
Growth Form	It is a liana up to 30 m long, with a stem 10 cm wide. Its stem bark is fibrous and difficult to break. Occasionally, its branchlets are transformed into hook-like organs.
Habitat	It is found in lowland forests. It occurs locally in Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate, simple leaves have hairy leaf blades that are leathery or slightly leathery, broad elliptic, and 5.5–14 cm by 3–7 cm. Its midrib is flattened above, and prominently raised below. Each leaf blade has up to 20 pairs of secondary veins. The upper surface of the leaf blades become dull olive-green and brown to reddish brown below upon drying.
Flowers	Its inflorescences are brown-red, borne at the branch tips, and up to 30 cm long. Each inflorescence has up to 14 flowers. The white to yellow bisexual flowers are rather stalkless.
Fruits	Its fruits are ridged, egg-shaped drupes that are 1.3 by 0.5 cm and the base is surrounded by the dried and torn floral tube.
Uses and Folklore	The plant is used to make inferior-scented gaharu wood and the phloem (bast) fibers are used for cordage.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Hou, D., 1972. Thymelaeaceae. *Flora Malesiana*, Series I, **6**: 1–48. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp.

Erycibe leucoxyloides King ex Prain: a, alternate leaf arrangement; b, lower surface of the leaves showing the indistinct veins of the leaf blades; c, upper surface of the leaves. Scale bars = 5 cm (a), 2 cm (b), 1 cm (c). (Photographs by: Tan Siu Yueh).

Scientific Name	*Erycibe leucoxyloides* King ex Prain
Main Group Key that Applies	Climbers
Etymology	Latin *Erycibe*, climbing, referring to the plant's climbing habit; Latin *leuco*, white; Greek *xylon*, wood, a reference to which is unknown
Synonym	–
Common Name	–
Scientific Family Name	Convolvulaceae
Common Family Name	morning glory family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a shrubby climber. Its younger branches are covered with stiff, star-shaped hairs. The older ones have distinct, longitudinal, cork ridges.
Habitat	It grows in open areas, up to 1,300 m in altitude. It occurs locally in Bukit Mandai, Bukit Timah, Buona Vista Road, Changi, MacRitchie Reservoir, and Nee Soon Swamp Forest.
National Conservation Status	Cryptogenic
Foliage	Its shortly stalked leaves have leathery leaf blades that are egg-shaped to lance-shaped, and 1.6–5.5 by 1–2 cm. Each leaf blade has 3–5 pairs of leaf veins that are rather indistinct on the lower surface. Leaf stalks are up to 6 mm long and grooved above.
Flowers	Its white fragrant flowers are solitary and located at leaf axils. Its sepals are sparsely covered with star-shaped hairs, except along the margins which are hairless.
Fruits	Its green fruits are flattened round and 1.5 by 1 cm.
Uses and Folklore	–
References	Ng, F. S. P., 1989. Convolvulaceae. *Tree Flora of Malaya*, **4**: 72−77. Ridley, H. N., 1923. *The Flora of the Malay Peninsula. Volume 2*. L. Reeve & Co., Ltd., London. vi + 672 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van Ooststroom, S. J., 1953. Convolvulaceae. *Flora Malesiana*, Series I, **4**: 388−512.

Erycibe tomentosa Blume: a, alternate leaf arrangement; b, undersurface of the leaf; c, close up of its white-petalled flower; d, orange or red fruits that will ripen to black when mature. Scale bars = 5 cm (a), 2 cm (b), 5 mm (c), 1 cm (d). (Photographs by: www.NatureLoveYou.sg).

Scientific Name	*Erycibe tomentosa* Blume
Main Group Key that Applies	Climbers; Trees and Shrubs
Etymology	Latin *Erycibe*, climbing, referring to the plant's climbing habit; Latin *tomentosa*, covered with hairs, probably referring to the hairy young branches and leaves that soon become hairless
Synonym	–
Common Names	Malay: akar pelandok, akar perut kerbau, akar perut kijang, akar sekijang, akar ulan jantan, jambul siul
Scientific Family Name	Convolvulaceae
Common Family Name	morning glory family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, West Java, Madura, Kangean Islands, and the Philippines
Growth Form	It is a woody climber or creeper up to 25 m long. It sometimes appears as a shrub up to 3 m tall. Its younger branches are densely covered with stiff, star-shaped hairs that become hairless over time. Older branches have distinct, longitudinal, cork ridges.
Habitat	It grows in shrubs and lowland forest, up to 1,200 m in altitude. It occurs locally in Mandai, Nee Soon Swamp Forest, Old Upper Thomson Road, Pulau Tekong, Pulau Ubin, Upper Peirce Reservoir, and Upper Seletar Reservoir.
National Conservation Status	Common
Foliage	Its alternate, stalked leaves have leathery leaf blades that are egg-shaped, elliptic or drop-shaped-oblong, and 5–18 by 2.5–8.5 cm, with pointed tips. Leaf stalks are up to 6 mm long and grooved above.
Flowers	Its flowering clusters are up to 7 cm long, and often located near apex of the branches. Each cluster bears 3–25 fragrant white flowers. Its sepals are clothed with brown star-shaped hairs.
Fruits	Its fruits are flattened round to egg-shaped, and about 12 by 7 mm. They ripen from orange or red to black when mature.
Uses and Folklore	The slender stems are used for binding fences.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Ng, F. S. P., 1989. Convolvulaceae. *Tree Flora of Malaya*, **4**: 72−77. Ridley, H. N., 1923. *The Flora of the Malay Peninsula. Volume 2*. L. Reeve & Co., Ltd., London. vi + 672 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van Ooststroom, S. J., 1953. Convolvulaceae. *Flora Malesiana*, Series I, **4**: 388−512.

Eurya acuminata DC.: a, alternate leaf arrangement; b, close-up of flower buds; c, close-up of undersurface of leaves, showing the veins and toothed leaf margins. Scale bars = 5 cm (a), 1 cm (b, c). (Photographs by: Koh Choon Yen).

Scientific Name	*Eurya acuminata* DC.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *eury*, broad, possibly referring to the broad petals; Latin *acuminatus*, pointed, referring to the leaf blade tips
Synonyms	*Diospyros serrata* Buch.-Ham. ex D.Don; *Eurya acuminata* DC. var. *euprusta* (Korth.) Dyer; *Eurya acuminata* DC. var. *monticola* Ridl.; *Eurya acuminata* DC. var. *multiflora* (DC.) Blume; *Eurya acuminata* DC. var. *wallichiana* (Steud.) Dyer; *Eurya angustifolia* Wall.; *Eurya angustifolia* (Blume) Walp.; *Eurya arisanensis* Hayata; *Eurya bifaria* Wall.; *Eurya blumeana* Korth.; *Eurya clandestina* Blume; *Eurya confinis* Blume; *Eurya euprista* Korth.; *Eurya grandis* Choisy; *Eurya hirsutula* Miq.; *Eurya japonica* Thunb. var. *phyllanthoides* (Blume) Dyer; *Eurya lucida* Wall.; *Eurya matsudae* Hayata; *Eurya membranacea* Gardner; *Eurya monticola* (Ridl.) Ridl.; *Eurya multiflora* DC.; *Eurya rostrata* Blume; *Eurya salicifolia* Blume; *Eurya serrata* (Blume) Walp.; *Eurya suzukii* Yamam.; *Eurya wallichiana* Steud.; *Eurya wrayi* King; *Geeria angustifolia* Blume; *Geeria serrata* Blume; *Ternstroemia bifaria* Buch.-Ham. ex D.Don; *Tristylium matsudae* (Hayata) Koidz.
Common Names	Malay: beras-beras, betutu, ceremai burung, jerak, jerak merah, jerak putih, kelantang, kelanting, tirak; Chinese: 尖叶柃 (jiān yè líng)
Scientific Family Name	Pentaphylacaceae
Common Family Name	tiup-tiup family
Origin	India, Sri Lanka, southwest China, Japan, Myanmar, Thailand, Vietnam, Sumatra, Peninsular Malaysia, Singapore, and Java
Growth Form	It is an evergreen shrub or small tree up to 15 m tall.
Habitat	It grows in evergreen forests, from the lowlands to mountains. It occurs locally in vicinity of Kent Ridge Park, Nee Soon Swamp Forest, Pulau Tekong, Upper Peirce and Upper Seletar reservoirs, and the Western Catchment Area.
National Conservation Status	Common
Foliage	Its alternate, shortly-stalked leaves have thinly leathery or membranous leaf blades that are usually lance-shaped to egg-shaped-oblong, with finely toothed leaf margin, and 4–10 by 1.5–3 cm. They are also drooping, with upcurled sides, and dark green veins. The leaf stalks and twigs that bear the leaves are hairy.
Flowers	Its flowers are solitary or clustered in threes, and found at the leaf axils. They are also about 6.5 mm wide, with white or yellowish-green petals.
Fruits	Its fruits are round, 3–6 mm wide, ripen greenish-white then blue, and finally black. Each fruit also contains many black seeds.
Uses and Folklore	It has horticultural potential as a park tree. The wood is used to make house beams. The leaves are used in traditional medicines. In Japan, the fruit pulp is used to make dyes.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Keng, H., 1978. Theaceae. *Tree Flora of Malaya*, **3**: 275−296. Min, T. & B. Bartholomew, 2007. *Eurya* Thunberg. *Flora of China*, **12**: 447–477. http://flora. huh.harvard.edu/china/PDF/PDF12/Eurya.pdf. (Accessed 8 Aug.2011). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Fibraurea tinctoria Lour.: a, fruiting leafy stems; b, drupes in cluster; c, close-up of the undersurface of its tri-veined leaf blade; d, leaf stalks that are swollen at both ends (arrowed). Scale bars = 5 cm (a, b), 2 cm (c), 1 cm (d). (Photographs by: http://www.NatureLoveYou.sg [a, c], Ang Wee Foong [b], and Koh Choon Yen [d]).

Scientific Name	*Fibraurea tinctoria* Lour.
Main Group Key that Applies	Climbers
Etymology	*Fibraurea*, golden fibers, probably referring to species with golden yellow wood; Latin *tinctoria*, used in dyeing, indicating this use of the species
Synonyms	*Cocculus fibraurea* DC.; *Fibraurea chloroleuca* Miers; *Fibraurea fasciculata* Miers; *Fibraurea laxa* Miers; *Fibraurea manipurensis* Brace ex Diels; *Fibraurea trotteri* Watt ex Diels; *Menispermum tinctorium* Spreng.
Common Names	Malay: akar badi, akar kencing kerbau, akar kuning, akar kunyit, akar penawar, sekunyit
Scientific Family Name	Menispermaceae
Common Family Name	moonseed family
Origin	Northeast India, Myanmar, Thailand, Vietnam, Sumatra, Peninsular Malaysia, Singapore, Java, Borneo, the Philippines, and northeast Sulawesi
Growth Form	It is a large woody liana with yellow wood and tendril-like young shoot tips, up to 40 m long. Its stems produce yellow latex.
Habitat	It grows in lowland forest and forest margin, up to 1,200 m in altitude. It is known locally from Bukit Kallang, Bukit Timah, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Island Country Club, National University of Singapore, Old Turf Club, Pulau Tekong, Pulau Ubin SAFTI Military Institute, and Sentosa.
National Conservation Status	Common
Foliage	Its spirally-arranged, stalked leaves have thinly leathery leaf blades that are circular, egg-shaped or oblong. The 3-veined leaf blades are 9–28 by 3.5–14 cm. Its leaf stalks are swollen at both ends.
Flowers	Its branched spikes are 10–38 cm long. Its sweet-smelling, unisexual flowers are white or yellow.
Fruits	Its round drupes ripen yellow to orange and grow in clusters.
Uses and Folklore	Its stem and root were mainly used as a source for yellow dye. The plant contains berberine, a compound for treating eyes. Root decoction is administered after child birth. Its stem is used for curing an ulcerated nose. Decoctions prepared from the stem are given to patients with dysentery in Java. A cold compress of its leaves is effective for headaches.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Forman, L. L., 1986. Menispermaceae. *Flora Malesiana*, Series I, **10**: 157−253. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants.* Cassell Publishers Limited, London. 363 pp.

Ficus apiocarpa (Miq.) Miq.: a, creeping form; b, climbing form; c, reddish stipules at the stem tips; d, upper and lower surfaces of its leaf; e, checkered venation on the underside of the leaf blade. Scale bars = 10 cm (a, b, d), 5 cm (c, e). (Photographs by: Teo Siyang).

Scientific Name	*Ficus apiocarpa* (Miq.) Miq.
Main Group Key that Applies	Climbers
Etymology	Latin *Ficus*, the name for the commercial edible fig, *Ficus carica*; Greek *apiocarpa*, from *apion* and *karpos*, meaning a pear and fruit respectively, referring to the shape of its syconium
Synonyms	*Ficus apiocarpa* (Miq.) Miq. var. *villosa* Corner; *Ficus tetangis* Miq.; *Urostigma apiocarpum* Miq.
Common Names	Malay: akar tangis burong, ara akar
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a stout, root climber which produces latex from damaged surfaces. Its leafy twigs are hollow.
Habitat	It grows in lowland forests, often in swamp forests. It occurs locally in the Central Catchment Nature Reserve (including Nee Soon Swamp Forest), around Mandai Lake Road, and the Western Catchment Area.
National Conservation Status	Endangered
Foliage	Its alternate, stalked leaves have leathery leaf blades that are oblong to rather drop-shaped or elliptic to egg-shaped, and 10–30 by 4–13 cm. Both surfaces of the leaf blades are hairless except the veins which are more or less hairy beneath. Lateral veins are up to six pairs.
Flowers	The species is dioecious as each individual produces either male or female flowers only in a syconium.
Fruits	Its pear-shaped syconia (figs) are found solitary or in pairs, distinctly stalked and borne at the leaf axils, 4–6.5 by 1.5–2.5 cm, green ripening orange to red, then purple to black when ripe.
Uses and Folklore	It has horticultural potential.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Synoecia*. *Flora Malesiana*, Series I, **17**: 467–558. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Ficus excavata King: a, creeping habit; b, upper surface of the leaf; c, the leaf blade margin is fringed with fine hairs; d, adventitious roots are developed at the nodes of the stem to aid climbing; e, the whitish lower surface of leaf is distinctly checkered. Scale bars = 5 cm (a), 1 cm (b–e). (Photographs by: Koh Choon Yen).

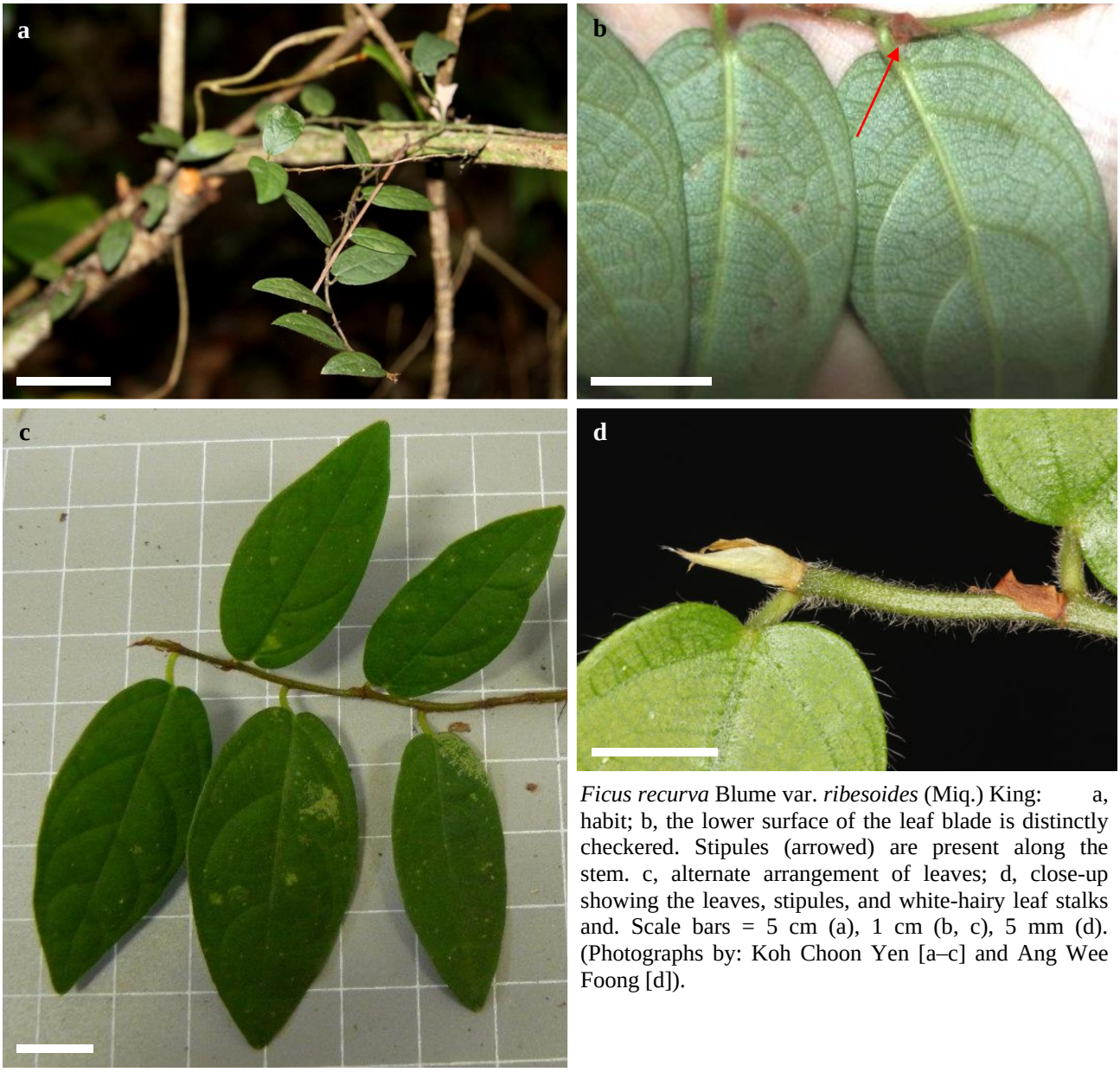
Scientific Name	*Ficus excavata* King
Main Group Key that Applies	Climbers
Etymology	Latin *Ficus*, the name for the commercial edible fig, *Ficus carica*; Latin *excavata*, hollowed out in a curve, referring to the apical part of the syconium of this species
Synonym	–
Common Name	–
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a root climber which produces white latex from damaged surfaces. Its leafy twigs are solid.
Habitat	It grows in lowland to hill forests up to a 1,300-m altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Presumed nationally extinct , but rediscovered in Nee Soon Swamp Forest
Foliage	Its stalked leaves have leathery leaf blades that are usually egg-shaped to heart-shaped to rather circular to rather drop-shaped or elliptic, and 1–4.5 by 0.5–3.5 cm. The leaf blades are minutely hairy or hairless above, and sparsely hairy below. The leaf margin is distinctly fringed with fine hairs. The lateral veins are up to five pairs.
Flowers	Its flowers occur in a syconium.
Fruits	Its stalkless syconia (figs) develop in clusters of six at the leaf axils. They are somewhat rounded, depressed at the tip, up to 3 mm wide, and orange-red to red when ripe.
Uses and Folklore	The plant has horticultural potential as an ornamental creeper or climber.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Synoecia*. *Flora Malesiana*, Series I, **17**: 467–558. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp.

Ficus grossularioides Burm.f.: a, leaves with entire leaf blade margins; b, prominent, circular, stipular scars along the stem (arrowed); c, leaves with trilobed leaf blades; d, close-up of its red and yellow syconia (figs); e, lower surface of leaf is distinctly whitish. Scale bars = 5 cm (a, e), 1 cm (b), 10 cm (c), 2 cm (d). (Photographs by: www.NatureLoveYou.sg [a–d] and Tan Siu Yueh [e]).

Scientific Name	*Ficus grossularioides* Burm.f.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Ficus*, name given for the commercial edible figs; Latin *grossularioides*, like the gooseberry
Synonyms	*Ficus alba* Reinw. ex Blume; *Ficus alba* Reinw. ex Blume var. *gossypina* (Wall. ex Miq.) Kuntze; *Ficus alba* Reinw. ex Blume var. *mappan* (Miq.) Miq.; *Ficus alba* Reinw. ex Blume var. *nudinervis* Kuntze; *Ficus bicolor* Hook. ex Miq.; *Ficus chloroleuca* Miq.; *Ficus gossypina* Wall. ex Miq.; *Ficus gossypina* Wall. ex Miq. f. *integrifolia* Miq.; *Ficus gossypina* Wall. ex Miq. f. *lobata* Miq.; *Ficus hunteri* Miq.; *Ficus lobata* Hunter ex Ridl.; *Ficus mappan* Miq.; *Ficus nivea* Blume; *Ficus palamoides* Voigt; *Ficus palmata* Roxb.
Common Names	English: white-leafed fig; Malay: ara putih; Chinese: 白叶榕 (bái yè róng)
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, Java, and Borneo
Growth Form	It is a white latex-producing shrub or a small tree that grows up to 9 m tall.
Habitat	It grows in primary and secondary lowland forests, forest edges, and along streams, up to 1,350 m in altitude. It occurs locally in Lazarus Island (Pulau Sakijang Pelepah), Kent Ridge Park, Nee Soon Swamp Forest, Old Upper Thomson Road, Pulau Tekong, Pulau Ubin, Upper Seletar Reservoir and many other sites.
National Conservation Status	Common
Foliage	Its spirally arranged, stalked leaves have partially leathery to papery leaf blades that are somewhat rough and hairy above, white and velvety below, with tertiary veins and reticulations visible, 3–35 by 1.5–30 cm, egg-shaped to heart-shaped with margins that are entire or distinctly toothed or at times 3–7-lobed.
Flowers	The species is dioecious with each individual producing either male or female flowers only in syconia.
Fruits	Its syconia (figs) occur in pairs on twigs, below the leaves, and in the leaf axils. They are somewhat round to flattened round, finely hairy when fresh, yellow to orange to brownish to red when mature, and 6–15 mm across.
Uses and Folklore	It is cultivated as an ornamental plant. Its young shoots are eaten. A decoction of the leaves is used to treat kidney ailments.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Ficus*. *Flora Malesiana*, Series I, **17**: 71–136. Corlett, R. T., 1993. Sexual dimorphism in the reproductive phenology of *Ficus grossularioides* Burm.f. in Singapore. *Malayan Nature Journal*, **46**: 149–155. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Ng, A. B. C., A. Ng, B. Lee, A. L. Chuah, S. G. Goh, J. T. K. Lai, G. C. Tan & V. D'Rozario, 2005. *A Guide to the Fabulous Figs of Singapore.* Singapore Science Centre, Singapore. 152 pp. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp.

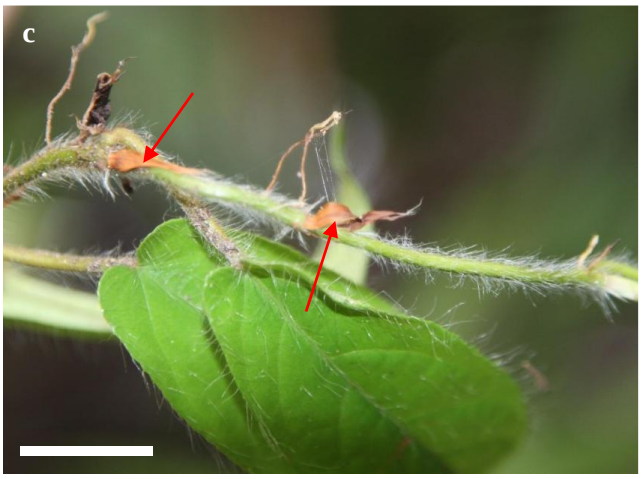
Ficus heteropleura Blume: a, habit; b, white latex flowing from the injured midrib; c, syconia with white spots on their surfaces; d, adventitious roots growing from the stems and branches of the plant; e, close-up of lower surface of leaf blade showing the prominent veins that are slightly raised below and looped near the leaf margin. Scale bars = 5 cm (a), 1 cm (b, c), 10 cm (d), 2 cm (e). (Photographs by: www.NatureLoveYou.sg [a, c–e] and Holly Joy Siow May-Ping [b]).

Scientific Name	*Ficus heteropleura* Blume
Main Group Keys that Apply	Trees and Shrubs; Climbers
Etymology	Latin *Ficus*, the name for the commercial edible fig, *Ficus carica*; Greek *hetero*, uneven, Greek *pleuro*, ribbed, referring to the prominent uneven veins on the underside of the leaf
Synonyms	*Ficus acuminata* Kunth & C.D.Bouché; *Ficus caudatifolia* Warb.; *Ficus caudatifolia* Warb. var. *eucaudata* (Elmer) Sata; *Ficus caudatifolia* Warb. var. *ovata* Sata; *Ficus crenulata* Hassk.; *Ficus eucaudata* Elmer; *Ficus euryifolia* Kunth & C.D.Bouché; *Ficus heteropleura* Blume var. *mindanaensis* (Warb.) Corner; *Ficus intermedia* Griff.; *Ficus mindanaensis* Warb.; *Ficus radicans* Roxb.; *Ficus radicans* Roxb. var. *brevifolia* Miq.; *Ficus rostrata* Lam. var. *urophylla* (Wall. ex Miq.) Valeton; *Ficus urophylla* Wall ex Miq.
Common Name	English: sandy-leafed fig
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Northeast India, Bhutan, Hainan, and Southeast Asia (including Singapore)
Growth Form	It is a tree or shrub up to 13 m tall. Often, it is lianescent and/or hemi-epiphytic, climbing on other plants for support. White latex is produced on cut surfaces.
Habitat	It grows in lowland to lower montane forests, up to a 1,800-m altitude. It occurs locally in Bidadari Cemetry, Bukit Timah, Cluny Road, Lower and Upper Peirce Reservoir, Nee Soon Swamp Forest, Pasir Ris, Pulau Ubin, Rochester Park, Seletar, Thomson Road, and many other sites.
National Conservation Status	Common
Foliage	Its alternate, stalked leaves have leathery leaf blades that are elliptic to oblong to lance-shaped to rather egg-shaped or rather drop-shaped, 2.5–45 by 1–18 cm. Its lateral veins are prominently raised below and looped near the leaf margins. Drip tips with rounded ends are present. Its leaves have a rough, sandy texture, as suggested by the common name.
Flowers	Its tiny flowers occur within syconia.
Fruits	Its syconia (figs) are round, 5–10 mm wide, and covered with minute hairs and white spots. They ripen from bright orange to fire-cracker red.
Uses and Folklore	It has horticultural uses.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Synoecia*. *Flora Malesiana*, Series I, **17**: 467–558. Kochummen, K.M., 1978. Moraceae. *Tree Flora of Malaya*, **3**: 119–168. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Ng, A. B. C., A. Ng, B. Lee, A. L. Chuah, S. G. Goh, J. T. K. Lai, G. C. Tan & V. D'Rozario, 2005. *A Guide to the Fabulous Figs of Singapore.* Singapore Science Centre, Singapore. 152 pp.



Ficus recurva Blume var. *ribesoides* (Miq.) King: a, habit; b, the lower surface of the leaf blade is distinctly checkered. Stipules (arrowed) are present along the stem. c, alternate arrangement of leaves; d, close-up showing the leaves, stipules, and white-hairy leaf stalks and. Scale bars = 5 cm (a), 1 cm (b, c), 5 mm (d). (Photographs by: Koh Choon Yen [a–c] and Ang Wee Foong [d]).

Scientific Name	*Ficus recurva* Blume var. *ribesoides* (Miq.) King
Main Group Key that Applies	Climbers
Etymology	Latin *Ficus*, the name for the commercial edible fig, *Ficus carica*; Latin *recurva*, curved backwards, probably referring to its the hook-like hairs; *ribesoides* is derived from two words, *ribas* (Arabic or Persian name for acid-tasting), and *iodes* (Greek word for violet or rust-coloured), referring to the ripe syconia (figs) of this species
Synonyms	*Ficus bulusanensis* Elmer; *Ficus recurva* Blume var. *bridelioides* Corner; *Ficus ribesoides* (Miq.) Wall. ex Miq.; *Ficus strigosa* Blume f. *longifolia* Miq.
Common Name	Malay: akar dahara
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, Java, Borneo, and the Philippines
Growth Form	It is an epiphytic root climber which produces white latex. Its leafy twigs are solid and sparsely covered with hook-like hairs.
Habitat	It grows on rocks and trees in lowland to lower montane forests, up to 1,600 m in altitude. It occurs locally along Jalan Inggu, Nee Soon Swamp Forest, and the Western Catchment Area.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have thinly leathery leaf blades that are rather egg-shaped to egg-shaped to oblong to elliptic or to lance-shaped, and is usually less than 10 cm long. The upper surface of the leaf blades is minutely hairy, mainly on the veins; the lower surface is relatively hairier. Hook-like hairs are present on both surfaces. The lateral veins are up to 6 pairs.
Flowers	Its flowers occur within syconia.
Fruits	Its stalked or stalkless syconia (figs) are round, 5–9 mm wide, and ripen orange to red. They also develop in pairs or clusters on twigs behind the leaves, or from the leaf axils.
Uses and Folklore	Back pains and stomach-ache can be treated by consuming a decoction of the roots. When finely chopped, the roots can be used as a betel nut (*Areca catechu*) substitute.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Synoecia*. *Flora Malesiana*, Series I, **17**: 467–558. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated*. Cassell Publishers Limited, London. 363 pp.

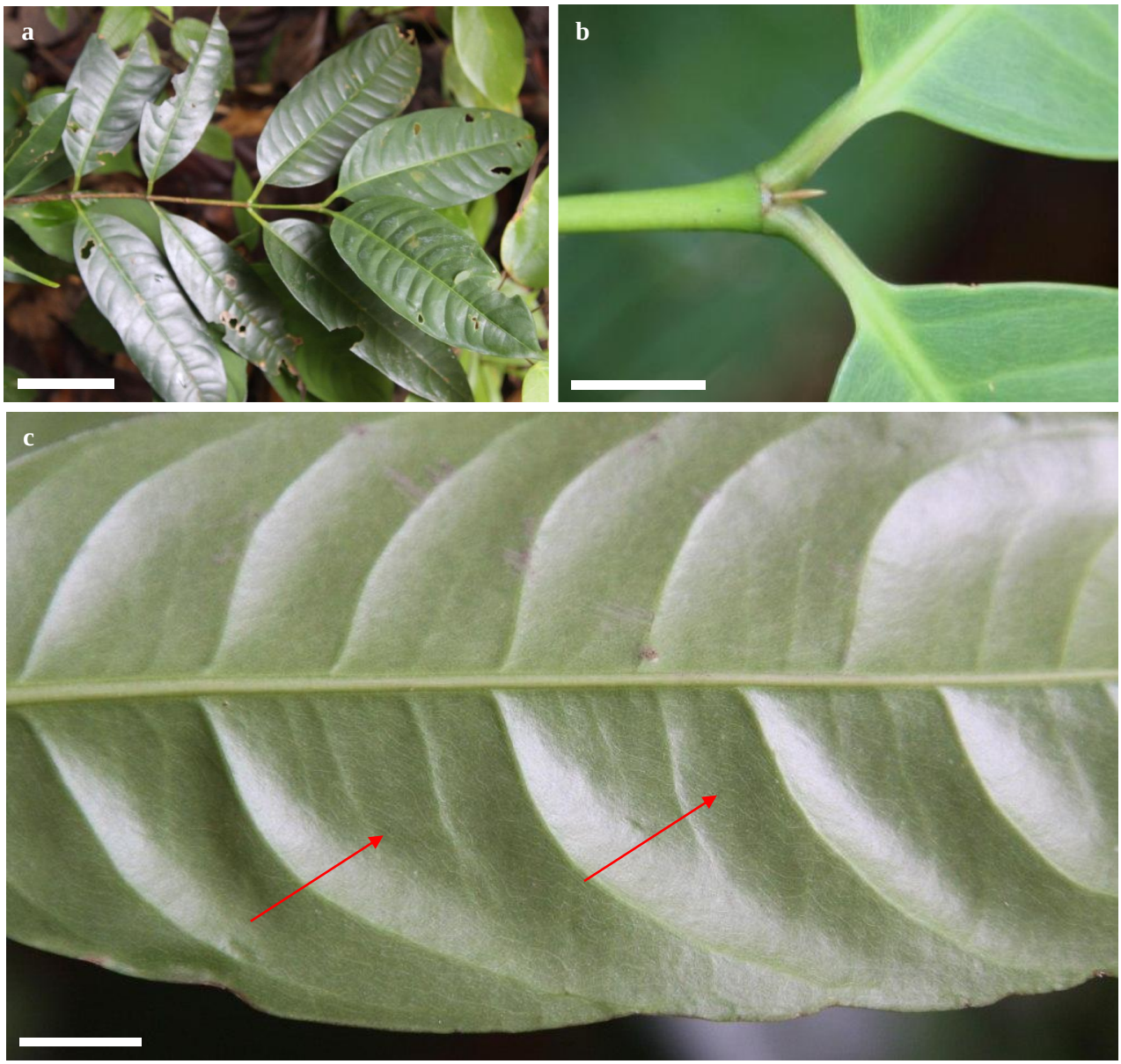


Ficus sagittata Vahl: a, climber habit; b, a young leaf with arrow-shaped leaf blade and heart-shaped base; c, close-up of densely hairy leaves and stems. Brown stipules are indicated by the arrows. Scale bars = 10 cm (a), 1 cm (b, c). (Photographs by: www.NatureLoveYou. sg [a, c] and Koh Choon Yen [b]).

Scientific Name	*Ficus sagittata* Vahl
Main Group Key that Applies	Climbers
Etymology	Latin *Ficus*, the name for the commercial edible fig, *Ficus carica*; Latin *sagittata*, arrow-shaped, a reference to the arrow-shaped leaf blades of this species
Synonyms	*Ficus adhaerens* Miq.; *Ficus bordenii* Merr.; *Ficus carophylla* Miq.; *Ficus coccinella* Zipp. ex Miq.; *Ficus compressicaulis* Blume; *Ficus crininervia* Miq.; *Ficus lanoensis* Merr. ex Sata; *Ficus leptocarpa* Steud. var. *adhaerens* (Miq.) Miq.; *Ficus leptocarpa* Steud. var. *borneensis* Miq.; *Ficus leptocarpa* Steud. var. *crassa* Miq.; *Ficus leptocarpa* Steud. var. *oligosperma* (Miq.) Miq.; *Ficus leptocarpa* Steud. var. *subglabra* Miq.; *Ficus leptocarpa* Steud. var. *timorensis* Miq.; *Ficus oligosperma* Miq.; *Ficus radicans* Desf.; *Ficus ramentacea* Roxb.; *Ficus ramosii* Merr. ex Sata; *Ficus rigescens* Miq.; *Ficus rubrocarpa* Elmer; *Ficus sagittata* Vahl var. *adhaerens* (Miq.) Corner; *Ficus sagittata* Vahl var. *minor* Corner; *Ficus sagittata* Vahl var. *oligosperma* (Miq.) Corner; *Ficus subrigida* Miq.; *Ficus tayabensis* Elmer; *Pogonotrophe rigida* Miq.
Common Names	Malay: akar beringin, sepedih; Chinese: 羊乳榕 (yáng rǔ róng)
Scientific Family Name	Moraceae
Common Family Name	fig family
Origin	North-eastern India, Andaman Islands to southern China, Myanmar, Indochina, Thailand, throughout Malesia (including Singapore), and Micronesia
Growth Form	It is a root climber which produces white latex. Its leafy twigs are hollow or solid and densely hairy to hairless.
Habitat	It climbs on trees in lowland and montane forests up to 1,500 m in altitude. It is known locally from Bukit Kallang, MacRitchie, Napir Road, Nee Soon Swamp Forest, Pulau Tekong, and Rifle Range Link.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have leathery leaf blades that are elliptic to oblong to rather egg-shaped, dark green above, lighter green below, and 4–30 by 1.5–14 cm, with rounded to heart-shaped bases. When young, its leaf blades are long arrow-shaped, and hairy below. Leaf blades are more or less hairy on the veins for both surfaces. Its midribs are raised as a narrow ridge on the upper surface of its leaves. Secondary nerves are sunken above, but raised below. Lateral veins are up to 10 pairs. Leaf blade margins are fringed with hairs.
Flowers	The species is dioecious as each individual produces either male or female flowers only within the syconia.
Fruits	The round syconia (figs) have characteristically long necks that resemble part of their stalks. They are up to 2 cm wide, ripen bright red or purple, and develop either singly or in pairs, and occasionally in clusters, in the leaf axils.
Uses and Folklore	It is cultivated for its ornamental value. The leaves may be smoked with opium owing to their reportedly narcotic properties.
References	Berg, C. C. & E. J. H. Corner, 2005. *Ficus* subgenus *Synoecia*. *Flora Malesiana*, Series I, **17**: 467–558. Kochummen, K. M. & R. Go, 2000. Moraceae. *Tree Flora of Sabah and Sarawak*, **3**: 181–334. Ng, A. B. C., A. Ng, B. Lee, A. L. Chuah, S. G. Goh, J. T. K. Lai, G. C. Tan & V. d'Rozario, 2005. *A Guide to the Fabulous Figs of Singapore.* Singapore Science Centre, Singapore. 152 pp. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, Delhi. viii + 287 pp. Rojo, J. P., F. C. Pitargue & M. S. M. Sosef, 1999. *Ficus sagittata* J. König ex Vahl. In: de Padua, L. S., N. Bunyapraphatsara & R. H. M. J. Lemmens (eds.), *Proseabase*. PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia. http://www.proseanet.org/prosea/e-prosea_detail.php?frt=&id=285. (Accessed 16 Jul.2010). Zhou, Z. & M. G. Gilbert, 2003. *Ficus* Linnaeus. *Flora of China*, **5**: 37–71. http://flora.huh.harvard.edu/china/PDF/PDF05/Ficus.pdf. (Accessed 16 Jul.2010).

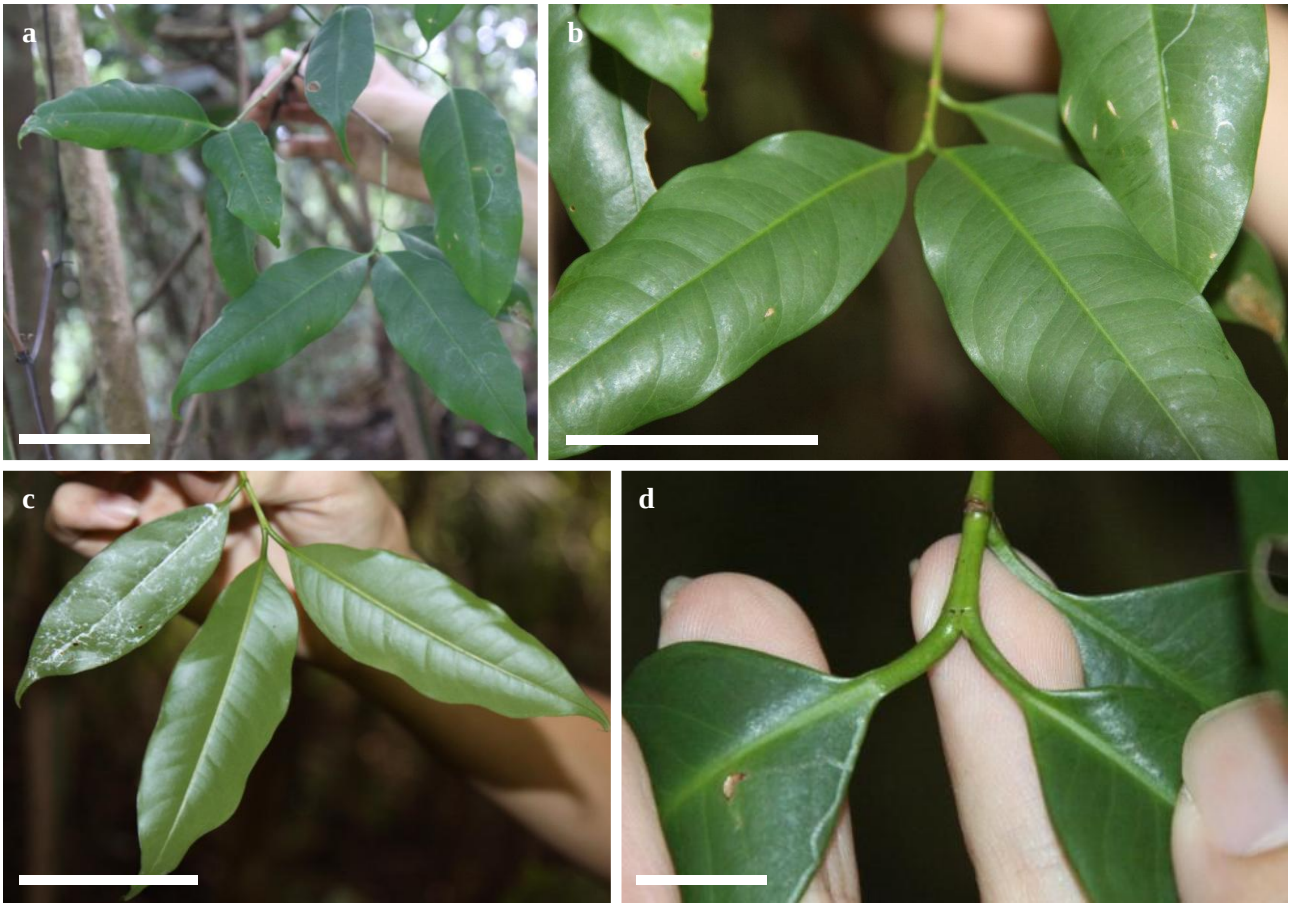
Flacourtia rukam Zoll. & Moritzi: a, alternate leaf arrangement; b, undersurface of reddish young leaf blade with toothed margins; c, thorns occur at the lower parts of the branch; d, close-up of undersurface of a mature leaf, showing two secondary veins at the base of the leaf blade branching from the midrib. Scale bars = 5 cm (a), 2 cm (b, d), 1 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Flacourtia rukam* Zoll. & Moritzi
Main Group Key that Applies	Trees and Shrubs
Etymology	*Flacourtia*, after Etienne de Flacourt (1607–1660), director of the French East India Company; *rukam*, after a Southeast Asian fruit
Synonym	–
Common Names	Malay: rukam; Chinese: 罗庚果 (luó gēng guǒ)
Scientific Family Name	Salicaceae
Common Family Name	willow family
Origin	Malaysia, probably introduced to Samoa, Indochina, Thailand and Hainan
Growth Form	It is a tree up to 20 m tall. It has thorns on the lower parts of branches.
Habitat	It is found in evergreen primary, secondary or teak forests often along rivers, up to a 2,100-m altitude. It is often cultivated for its fruit. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its alternate, simple leaves have leaf blades that are leathery or slightly leathery, egg-shaped-oblong, elliptic to oblong-lance-shaped, and 6.5–18 by 3–9 cm. Its young leaves are red to brown. They become dark green above and light green below when mature. Its leaf apex is tapered or rounded and the leaf margin is toothed. Each leaf has up to 12 pairs of secondary veins. The leaves are blackish brown when dried.
Flowers	Its inflorescences are axillary and few-flowered. The unisexual flowers are greenish yellow and scentless. Male flowers are mostly orange to white.
Fruits	Its fruits are berry-like drupes, round to flattened or egg-shaped, and ripen pink or dark red. They are 2–2.5 cm across and each topped by a ring of styles.
Uses and Folklore	The plant is cultivated for its edible fruits for jam. The juice of the fruits is used for treating dysentery, dysmenorrhoea and diarrhoea. The juice of the leaves is applied to inflamed eyelids. Its wood is hard and used to make pestles or shafts in the Philippines.
References	Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Sleumer, H., 1968. Flacourtiaceae. *Flora Malesiana*, Series I, **5**: 1–106. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



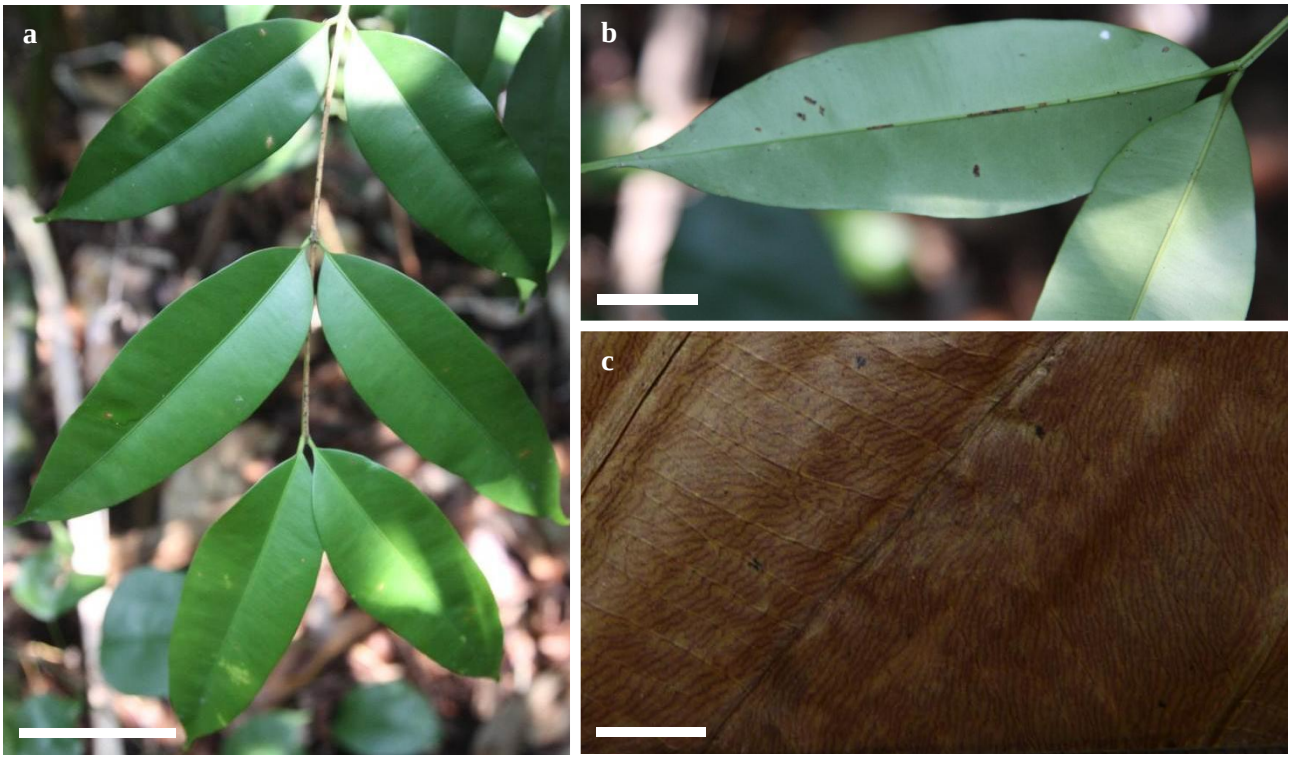
Garcinia maingayi Hook.f. var. *stylosa* King: a, opposite leaf arrangement; b, close-up of shoot tip; c, close-up of lower surface of leaf. The whitish resin ducts (arrowed) are numerous and thread-like, cutting across the leaf veins. Scale bars = 5 cm (a), 1 cm (b, c). (Photographs by: Koh Choon Yen).

Scientific Name	*Garcinia maingayi* Hook.f. var. *stylosa* King
Main Group Key that Applies	Trees and Shrubs
Etymology	*Garcinia*, after Laurent Garcin (1683–1751), a French botanist who travelled widely in India; Latin *maingayi*, from A. C. Maingay (1836–1869), a botanist of the East India Company; Greek *stylosa*, having styles
Synonym	–
Common Name	–
Scientific Family Name	Clusiaceae
Common Family Name	mangosteen family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a tree up to 21 m tall.
Habitat	It grows in lowland and occasionally swampy forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its opposite, stalked leaves have leaf blades that are dark green, slightly elliptic to egg-shaped-oblong, and 14–19 by 6.5–8.5 cm. The leaf blades have a broad tip and tapered base. Its leaves dry to blackish-brown. Its midrib is flattened above, and prominently raised below. Its leaves have fine resin ducts crossing the veins and leaf pouches at the base of leaf stalks.
Flowers	Its white or light yellow male flowers are 25–31 mm across and are in clusters of 3–12, while female flowers are solitary. The petals are thick, round, and concave. The large number of stamens forms a thick spherical mass.
Fruits	Its round, glabrous fruits are 6 cm wide, and dry to black. Its stigma is disc-shaped, convex, about 7 mm wide, and covered with minute projections.
Uses and Folklore	It is a source of timber.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Guttiferae. *Tree Flora of Malaya*, **2**: 162−236.



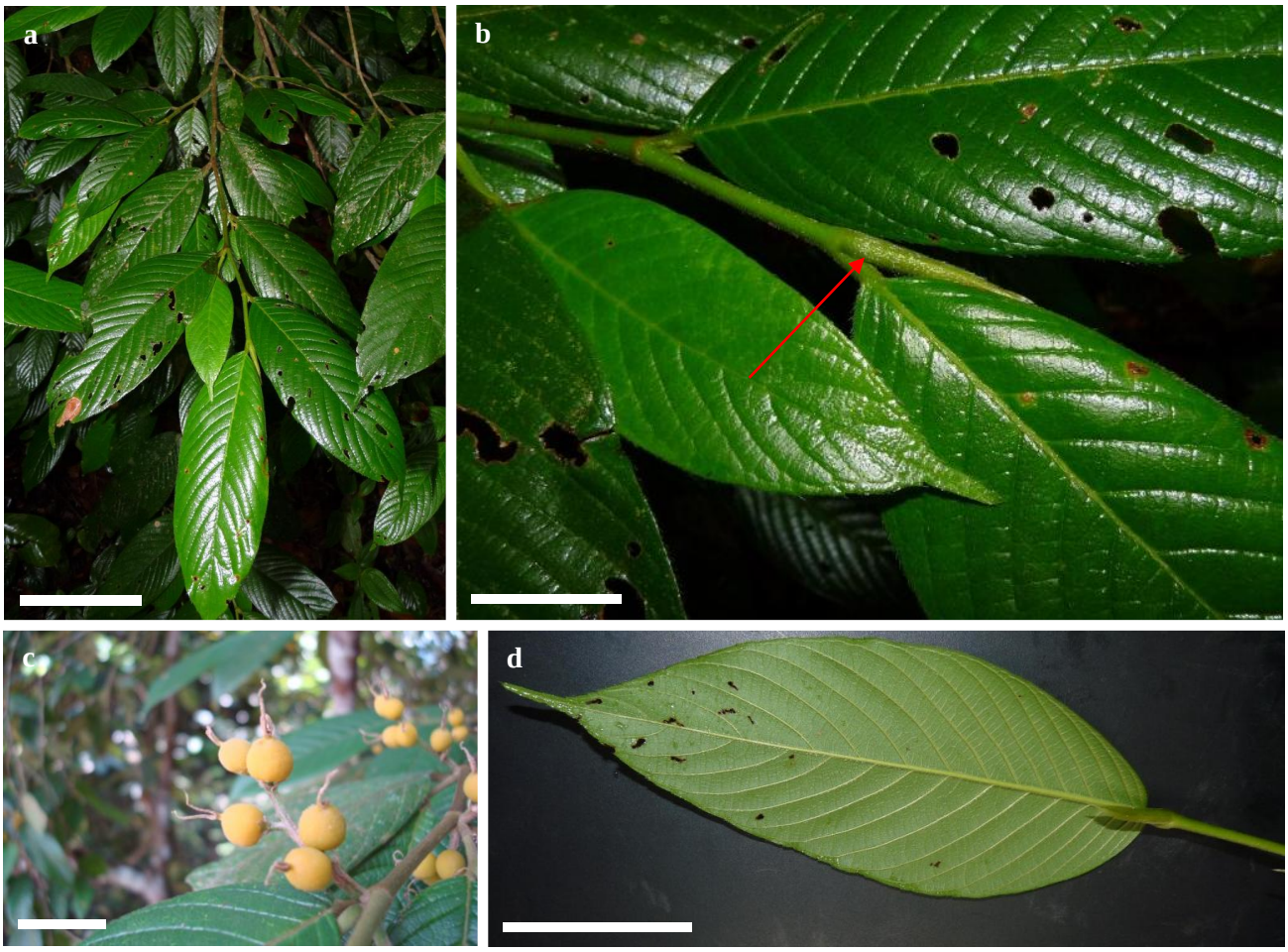
Garcinia parvifolia (Miq.) Miq.: a, opposite leaves; b, upper surface of leaves; c, lower surface of leaves showing the inconspicuous leaf venation; d, close-up of the branch tip. Scale bars = 5 cm (a–c), 1 cm (d). (Photographs by: Koh Choon Yen).

Scientific Name	*Garcinia parvifolia* (Miq.) Miq.
Main Group Key that Applies	Trees and Shrubs
Etymology	*Garcinia*, after Laurent Garcin (1683–1751), a French botanist who travelled widely in India; Latin *parvus*, small; Latin *folium*, leaf , a reference to leaf size of this species
Synonyms	*Garcinia globulosa* Ridl.; *Garcinia tetangies* Boerl.; *Rhinostigma parvifolium* Miq.
Common Names	English: wild yellow-kandis; Malay: kandis
Scientific Family Name	Clusiaceae
Common Family Name	mangosteen family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 33 m tall, and rarely a shrub.
Habitat	It grows in primary and secondary forests, up to a 600-m altitude, and occasionally in peat swamp forests. It occurs locally in Bukit Timah Nature Reserve, MacRitchie Reservoir, Mandai Forest, Nee Soon Swamp Forest, Pulau Ubin, and in the vicinity of Upper Peirce Reservoir.
National Conservation Status	Common
Foliage	Its opposite, stalked leaves have thinly leathery leaf blades that are dark green, narrowly elliptic, and are 5–15 by 1.9–5.7 cm. The venation is inconspicuous. The leaf blades narrow abruptly towards the tip. Resin ducts are numerous and faintly visible on the lower surface of leaves.
Flowers	Its flowers are white-yellow. Both male and female flowers grow in clusters at the leaf axils. Its male flowers are 7–10 mm wide and cream coloured, while female flowers are 4–6 mm wide and yellow.
Fruits	Its yellow-orange fruits are elliptic, and are 17 mm wide on a persistent perianth. Its stigma is sunken and concealed. Its fruits contain 1–8 small seeds which are covered with white pulp.
Uses and Folklore	Its timber is used in the construction of houses, while its fruits are used as flavouring for rice.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Guttiferae. *Tree Flora of Malaya*, **2**: 162−236.



Garcinia rostrata Hassk. ex Hook.f.: a, two leaves per node and opposite arrangement; b, lower surface of leaves; c, close-up of dried leaf blade, revealing the numerous red resin ducts that cut across the veins. Scale bars = 5 cm (a), 2 cm (b), 1 cm (c). (Photographs by: Koh Choon Yen [a, b] and Tan Siu Yueh [c]).

Scientific Name	*Garcinia rostrata* Hassk. ex Hook.f.
Main Group Key that Applies	Trees and Shrubs
Etymology	*Garcinia*, after Laurent Garcin (1683–1751), a French botanist who travelled widely in India; Latin *rostrata*, beaked
Synonyms	*Discostigma caudatum* A.Gray; *Discostigma rostratum* Hassk.; *Garcinia wrayi* King
Common Name	–
Scientific Family Name	Clusiaceae
Common Family Name	mangosteen family
Origin	Peninsular Malaysia, Singapore, and Java
Growth Form	It is a small tree up to 12 m tall.
Habitat	It grows on lowland, hills, and peat swamp forests. It occurs locally in Nee Soon Swamp Forest and Pulau Pawai.
National Conservation Status	Critically endangered
Foliage	Its opposite, stalked leaves have thin leathery leaf blades that are elliptic-oblong, 6.3–8.8 by 3.1–3.4 cm. Its midrib is prominent. Its dried leaves have conspicuous fine resin ducts crossing the veins.
Flowers	Its male flowers are about 3 mm wide, and grow in clusters of 3–9 at the leaf axils. Its bisexual flowers grow in clusters of three. Its round petals are pink or white.
Fruits	Its fruits are round, and are up to 12.7–16.5 cm wide. Its stigma is circular.
Uses and Folklore	It has horticultural potential as a park tree.
References	Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1973. Guttiferae. *Tree Flora of Malaya*, **2**: 162−236.



Gironniera nervosa Planch.: a, alternate leaves; b, close-up of leaves and terminal bud (arrowed); c, yellow fruits are each equipped with a pair of styles; d, close-up of lower surface of leaf. Scale bars = 10 cm (a), 2 cm (b), 1 cm (c), 5 cm (d). (Photographs by: Tan Siu Yueh [a, b, d] and www.NatureLoveYou.sg [c]).

Scientific Name	*Gironniera nervosa* Planch.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Gironniera*, commemorates Pronts de la Gironnier, a French citizen of Manila; Latin *nervosa*, prominent veins, referring to the conspicuous leaf blade veins of this species
Synonyms	*Antidesma nervosum* Wall.; *Gironniera penangiana* Gand.; *Gironniera sponioides* Gand.
Common Names	English: common rough laurel; Malay: medang berbulu, medang kasap
Scientific Family Name	Cannabaceae
Common Family Name	hemp family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a small- to large-sized unisexual tree with round crown, up to 40 m tall. Its trunk bark is brownish-grey with a smooth or finely fissured surface. Ring-like marks and lenticels are present on the trunk bark surface.
Habitat	It grows in primary and secondary forests of mostly below 500 m in altitude. It is known locally from Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Common
Foliage	Its alternate stalked leaves have thickly leathery leaf blades that are elliptic-lance-shaped to elliptic-oblong. The leaf blades are hairless above, yellowish-brown hairy below, and 6.5–22.7 by 2.5–10.2 cm. Stipules are up to 2 cm long.
Flowers	Its male flowering clusters are up to 7 cm long, bearing 20–100 flowers. Its female flowering clusters are at most 2.5 cm long, with 5–10 flowers. Both the male and female flowers are up to 2 mm wide with dense yellowish-brown hairs.
Fruits	Its 3 cm-long fruit clusters bear between 2–8 fruits. Its rather round or egg-shaped fruit, covered with appressed hairs, is 4–6 mm wide. Each fruit is equipped with a pair of styles 0.8–1.3 cm long. The fruits are hard and orange when fresh.
Uses and Folklore	Its timber is used for house building.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Manila. 750 pp. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Soepadmo, E., 1977. Ulmaceae. *Flora Malesiana*, Series I, **8**: 31−76. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Gluta wallichii (Hook.f.) Ding Hou: a, leafy branches; b, spiral leaves; c, lower surface of the leaf; d, white sap from the damaged midrib; e, leaf stalks of the species are relatively long; f, its root is buttressed. Scale bars = 30 cm (a), 5 cm (b, c), 1 cm (d), 2 cm (e), 10 cm (f). (Photographs by: Teo Siyang [a, e], Koh Choon Yen [b, c, d], and Hugh Tan Tiang Wah [f]).

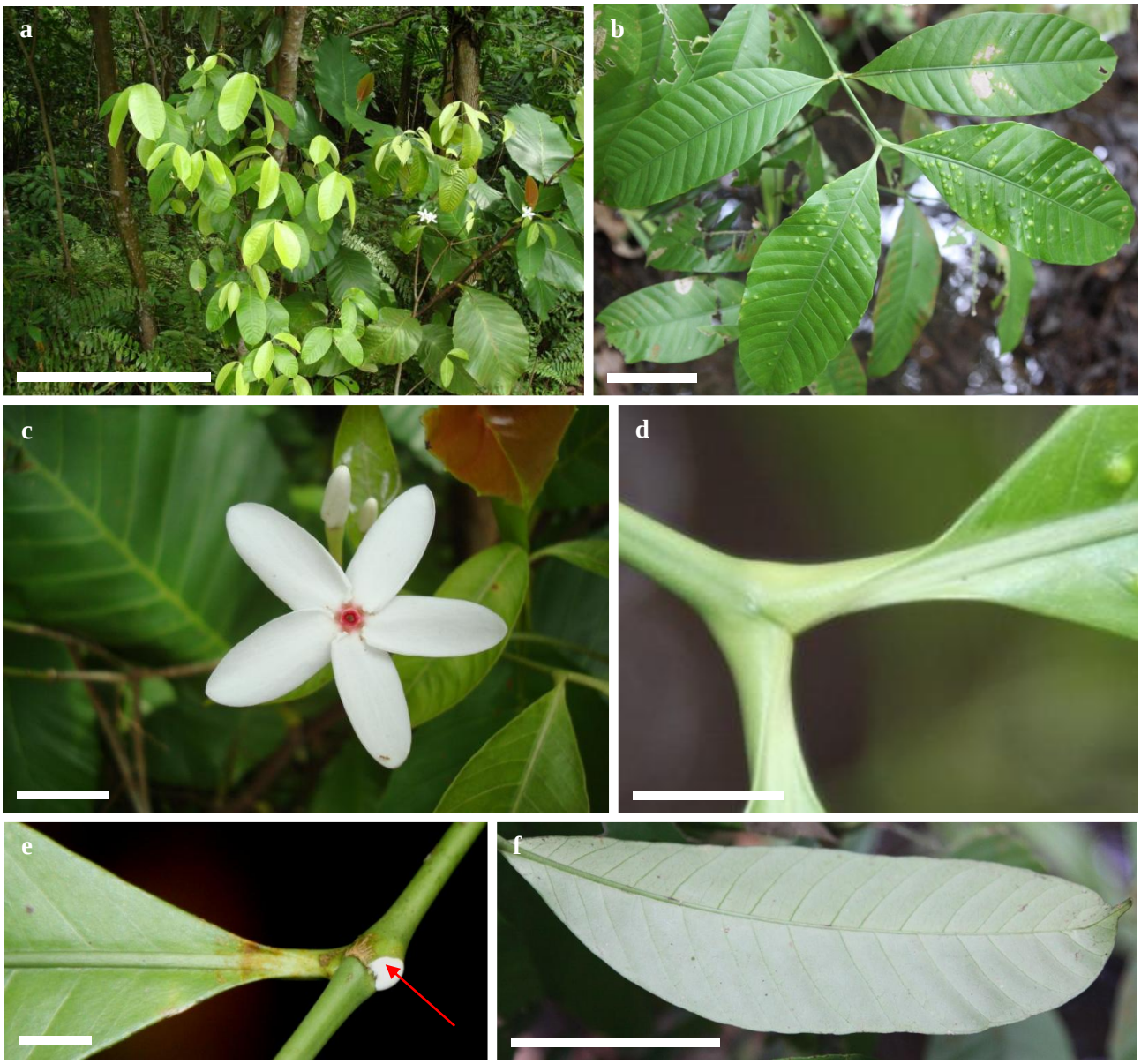
Scientific Name	*Gluta wallichii* (Hook.f.) Ding Hou
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Gluta*, glue, referring to the resinous sap produced by the plant; Latin *wallichii*, commemorates Nathaniel Wallich (1786–1854), originally Nathan Wolff, a Danish botanist and author, Curator of Calcutta Botanic Garden
Synonym	*Melanorrhoea wallichii* Hook.f.
Common Names	English: marsh rengas, Wallich's rengas, water rengas; Malay: rengas, rengas ayer, rengas burung, rengas kerbau jalang, rengas manok, rengas paya, rengas sumpah biawak, sialang
Scientific Family Name	Anacardiaceae
Common Family Name	mango family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a large evergreen tree up to 46 m tall, with a conical crown. Tree branches are often bent and twisted. It is usually slightly buttressed. The tree trunk bark is greyish brown, fairly fissured and flaky.
Habitat	It grows in freshwater swamp forest and dry land forest. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Common
Foliage	Its spirally arranged, stalked leaves have leathery leaf blades that are reverse lance-shaped and 7.6–34.5 by 3.8–14 cm. Leaf surfaces are usually hairless, but sometimes soft wooly hairs might be present below. Its leaf stalk is narrowly winged and grooved on the upper surface. Leaf veins are raised on the leaf blade's lower surface but flattened above.
Flowers	Its flowers are white, with densely hairy petals, up to 1.3 cm wide. Its branched flowering clusters are up to 33 cm long.
Fruits	Its fruits are egg-shaped or flattened round drupes, smooth brownish and 15 by 10 mm. The nut is equipped with bright red, up to 7.6 cm-long wings that aid in its dispersal by wind.
Uses and Folklore	Its timber is highly valued for building and furniture. Heated leaves are effective against bruises. Its fruit is one of the ingredients for dart poison. Its root, when made into paste and heated, has been applied in treatment for abscesses.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ding, H., 1973. Anacardiaceae. *Flora Malesiana*, Series I, **8**: 395−548. Kochummen, K. M., 1996. Anacardiaceae. *Tree Flora of Sabah and Sarawak*, **2**: 1−92. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Gynotroches axillaris Blume: a, opposite leaves; b, lower surface of the leaf; c, young leaves have reddish leaf blades; d, prop root (arrowed); e, fruits. Scale bars = 5 cm (a), 2 cm (b–d), 5 mm (e). (Photographs by: Koh Choon Yen [a, b], www.NatureLoveYou.sg [c], www.florasingapura.com [d], and Ang Wee Foong [e]).

Scientific Name	*Gynotroches axillaris* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek *gune*, woman; Greek *trochos*, wheel, referring to the shape of the stigma; Latin *axillaris*, axillary, referring to the position of the flowers
Synonyms	*Dryptopetalum coriaceum* Arn.; *Gynotroches dryptopetalum* Blume; *Gynotroches lanceolata* Merr.; *Gynotroches micrantha* Blume; *Gynotroches parvifolia* Merr.; *Gynotroches puberula* Merr.; *Gynotroches reticulata* A.Gray; *Microtropis coriacea* Wall.
Common Name	Malay: mata keli
Scientific Family Name	Rhizophoraceae
Common Family Name	mangrove family
Origin	Myanmar, Thailand, throughout Malaysia, Singapore, and Australia
Growth Form	It is a small- to medium-sized tree up to 45 m tall. Its grey to blackish trunk bark is transversely fissured.
Habitat	It grows in lowland swamps, marshes, and up to montane forests. It is very common in secondary forests. It can be found in Ang Mo Kio, Bukit Kallang, Bukit Mandai, Bukit Timah, Bukit Timah Nature Reserve, Changi Reserve, Jurong, MacRitchie Reservoir, Mandai Road, Nee Soon, Nee Soon Swamp Forest, Lower and Upper Peirce reservoirs, Pulau Tekong, Pulau Tekong Kechil, Pulau Ubin, and Seletar.
National Conservation Status	Common
Foliage	Its opposite leaves have leaf blades that are oblong, elliptic to egg-shaped and are 4.5–20 by 1.5–9 cm. The tip is tapered or blunt and the base is acute or round. The leaf blades are shiny and dark brown when dry. Its midrib is flattened above, and prominently raised below.
Flowers	Its flowers are greenish-white and bisexual. The petals are egg-shaped or elliptic and 2.5 by 0.74 mm. The stamens appear as filamentous appendages on a cup-shaped base.
Fruits	Its red, round berries are 3 mm wide, and ripen black. The fruits are pulpy with calyx lobes that are upright or bent downwards. Its seeds are egg-shaped to round, 1.5 by 0.5 mm with areolae.
Uses and Folklore	The timber is used to construct oars and built rafters.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Hou, D., 1955. Rhizophoraceae. *Flora Malesiana*, Series I, **5**: 429−493. Kochummen, K. M., 1989. Rhizophoraceae. *Tree Flora of Malaya*, **4**: 302−323. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

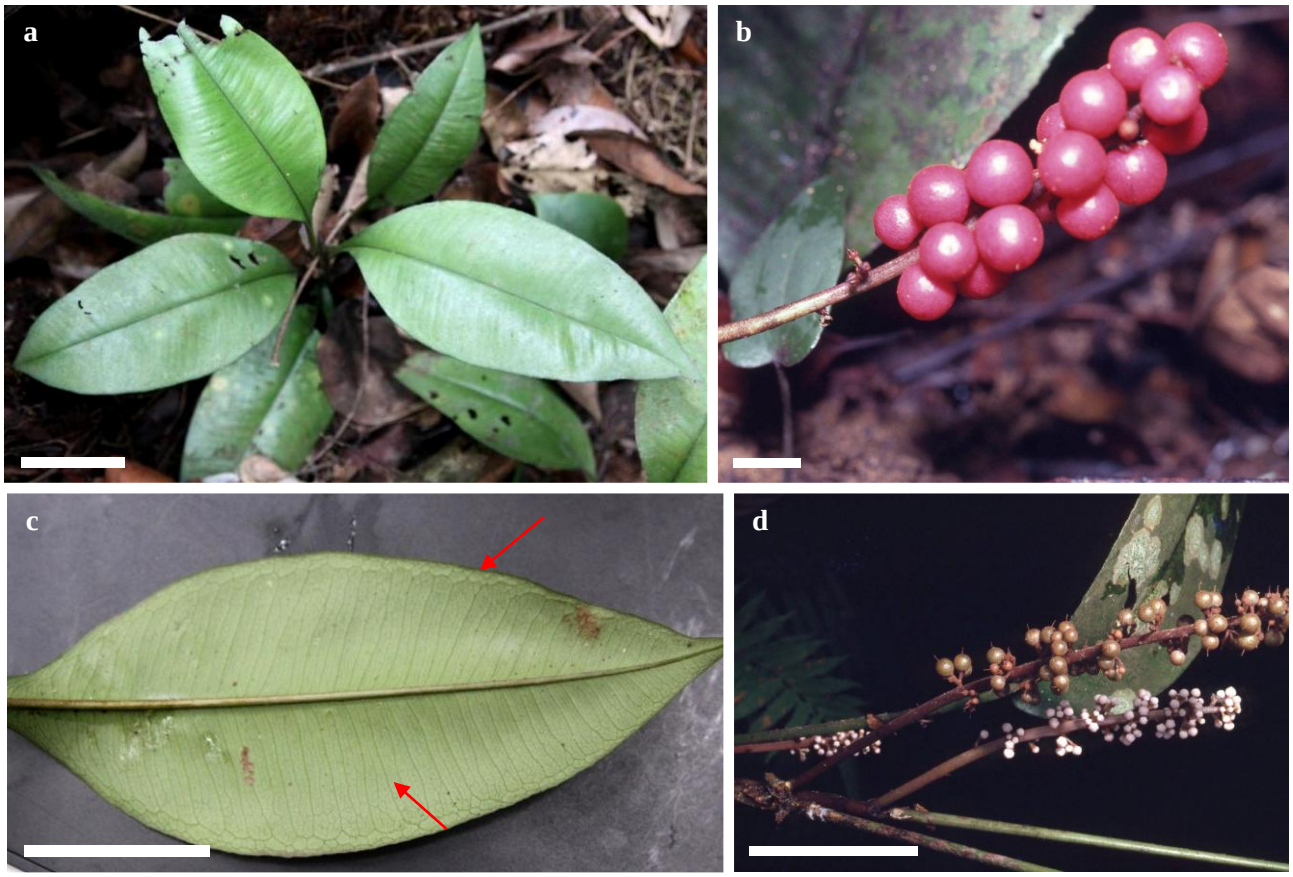
Knema conferta (King) Warb.: a, alternate leaves; b, its trunk bark is brown to grey; c, buttress root (arrowed); d, a ripe fruit, containing a seed surrounded by a shiny red aril; e, distinctly whitish undersurface of its leaf blades. Scale bars = 15 cm (a, c, e), 10 cm (b), 2 cm (d). (Photographs by: www.florasingapura.com).

Scientific Name	*Knema conferta* (King) Warb.
Main Group Key that Applies	Trees and Shrubs
Etymology	Greek, *knémé*, wheel spokes, referring to the arrangement of the anthers at the top of the stamen column; Latin, *conferta*, crowded, a reference to which is unknown
Synonym	*Myristica conferta* King
Common Names	Malay: penarahan batu, penarah batu, penarahan bukit
Scientific Family Name	Myristicaceae
Common Family Name	nutmeg family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree often with steep, thick buttresses and up to 25 m tall. Its coarsely striated trunk bark is warm brown to grey and smooth-scaly. Its twigs are initially densely covered with rusty, star-shaped hairs that soon rub off. The plant produces red sap from damaged areas.
Habitat	It grows in lowland forests, including those that are inundated and swampy, up to 600 m in altitude. It is locally known from Bukit Timah, MacRitchie Reservoir, and Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its alternate, stalked leaves possess papery to leathery leaf blades that are oblong to lance-shaped and 10–30 by 3–12 cm. The leaf blades are shiny dark green above and whitish to greyish green beneath. The lower surface of the leaf blades is covered with star-shaped hairs.
Flowers	Its flowering shoots are 10–15 mm long. Its male flowering shoots have 5–40 flowers while female ones are often only up to 10 flowers. The yellow flowers are covered with dull rusty hairs.
Fruits	Its reddish brown or orange, initially hairy fruits are egg-shaped with a flattened tip and 1.5–4 by 1–3 cm. Each capsule contains a seed enclosed by a red aril.
Uses and Folklore	The plant is used in general construction and packing cases.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. De Wilde, W. J. J. O., 2000. Myristicaceae. *Flora Malesiana*, Series I, **14**: 251–252. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Whitmore, T. C., 1972. Myristicaceae. *Tree Flora of Malaya*, **1**: 335.



Kopsia singapurensis Ridl.: a, treelet crown; b, opposite leaves; c, close-up of flower; d, close-up of shoot tip; e, white latex from a leaf scar; f, lower surface of leaf. Scale bars = 50 cm (a), 5 cm (b, f), 1 cm (c, d), 2 cm (e). (Photographs by: www.NatureLoveYou.sg [a, c] and Tan Siu Yueh [b, d–f]).

Scientific Name	*Kopsia singapurensis* Ridl.
Main Group Key that Applies	Trees and Shrubs
Etymology	Latin *Kopsia*, commemorates J. Kops, a Dutch botanist; Latin *singapurensis*, from Singapore, referring to one locality in the natural distribution of this species
Synonym	–
Common Names	English: Singapore kopsia, white kopsia; Malay: selada
Scientific Family Name	Apocynaceae
Common Family Name	periwinkle family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a small, evergreen treelet or tree up to 12 m tall, with a conical crown. Its slightly flaky trunk bark is greyish to light silvery brownish. White latex is produced from damaged parts.
Habitat	It grows in lowland evergreen or swamp forests, and on river banks, up to 600 m in altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its opposite, stalked leaves have rather leathery to leathery leaf blades that are 6–26 by 2.5–11.5 cm. The egg-shaped leaf blades are gradually narrowed to a blunt tip of 1.3 cm long.
Flowers	Its flowering clusters are 3.5–12.5 cm long. Flowers are white, each with five petals that are fused to form a tube and five free lobes. The throat of the tube is red. Usually, the flowers are 2.5–3.8 cm wide, but they can reach up to 7.6 cm across.
Fruits	Its dull red fruits are flattened, somewhat triangular in shape, and up to 1.9 cm wide.
Uses and Folklore	Root poultice has been used in treatment for ulcerated nose in tertiary syphilis by the Malay.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Middleton, D. J., 2007. Apocynaceae (Subfamilies Rauvolfioideae and Apocynoideae). *Flora Malesiana*, Series I, **18**: 1−452. Ridley, H. N., 1923. *The Flora of the Malay Peninsula. Volume 2*. L. Reeve & Co., Ltd., London. vi + 672 pp. Tan, H. T. W., I. M. Turner, Ali bin Ibrahim & K. S. Chua, 1995. Plant portraits and data sheets: Seed plants. In: Tan, H. T. W. (ed.), *A Guide to the Threatened Plants of Singapore.* Singapore Science Centre, Singapore. Pp. 33−114.

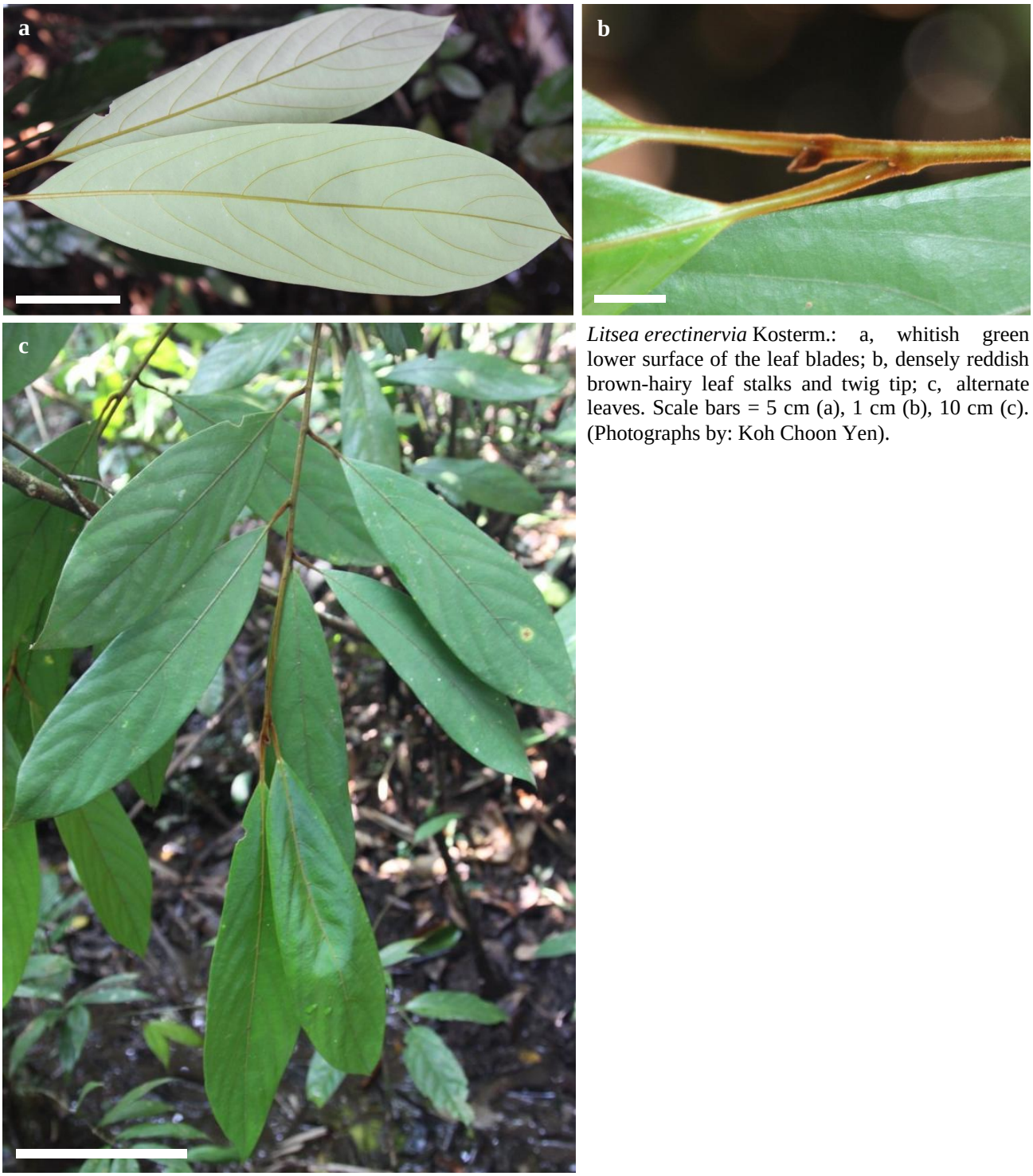


Labisia pumila (Blume) Mez: a, habit; b, close-up of its red fruits; c, lower surface of leaf. Rows of areolae are found along the leaf blade margin. d, close-up of its pale pink flowers (below) and unripe fruits (above). Scale bars = 5 cm (a–d). (Photographs by: Holly Joy Siow May-Ping [a, c] and Hugh Tan Tiang Wah [b, d]).

Scientific Name	*Labisia pumila* (Blume) Mez
Main Group Key that Applies	Herb
Etymology	Greek *labis*, handle or hilt, a reference to the way petal margins enclose each stamen; Latin *pumila*, small or dwarf, referring to the size of this species
Synonyms	*Ardisia pumila* Blume; *Labisia pothoina* Lindl.; *Labisia pumila* (Blume) Fern.-Vill.
Common Names	English: common labisia; Malay: akar kacip Fatimah, akar kacit Fatimah, akar kecil Fatimah, akar kunci Fatimah, akar rumput Siti Fatimah, akar selusuh Fatimah, pokok pinggang, tadah matahari
Scientific Family Name	Myrsinaceae
Common Family Name	ardisia family
Origin	Indochina, south Thailand, Malaysia, and Singapore
Growth Form	It is an herb with upwardly arching, variably shaped leaves arising from the main stem.
Habitat	It grows in the understory of hill and lowland forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its spiral, stalked leaves have leaf blades that are lance-shaped or egg-shaped, blackish-green with pink edges when young, and 5.1–30.5 by 1.9–10.2 cm. Its elongated leaf stalks are often winged.
Flowers	Its small flowers are white or pale pink, and found in small spike-like shoots along upright branches up to about 30.5 cm long.
Fruits	Its 1-seeded fruits are round, bright red berries, and about 5 mm wide.
Uses and Folklore	Women take extracts of the plant to induce or facilitate labour, as well as a post-labour tonic. The plant is also used medicinally against dysentery, dysmenorrhoea, flatulence, and gonorrhea.
References	Backer, C. A., 1936. *Verklarend Woordenboek.* Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Henderson, M. R., 1974. *Malayan Wild Flowers. Dicotyledons.* The Malayan Nature Society, Kuala Lumpur. 478 pp. Keng, H., 1990. *The Concise Flora of Singapore: Gymnosperms and Dicotyledons*. Singapore University Press, Singapore. 222 pp. Stone, B. C., 1989. Myrsinaceae. *Tree Flora of Malaya*, **4**: 264−284. Tan, H. T. W., I. M. Turner, Ali bin Ibrahim & K. S. Chua, 1995. Plant portraits and data sheets: Seed plants. In: Tan, H. T. W. (ed.), *A Guide to the Threatened Plants of Singapore.* Singapore Science Centre, Singapore. Pp. 33−114.

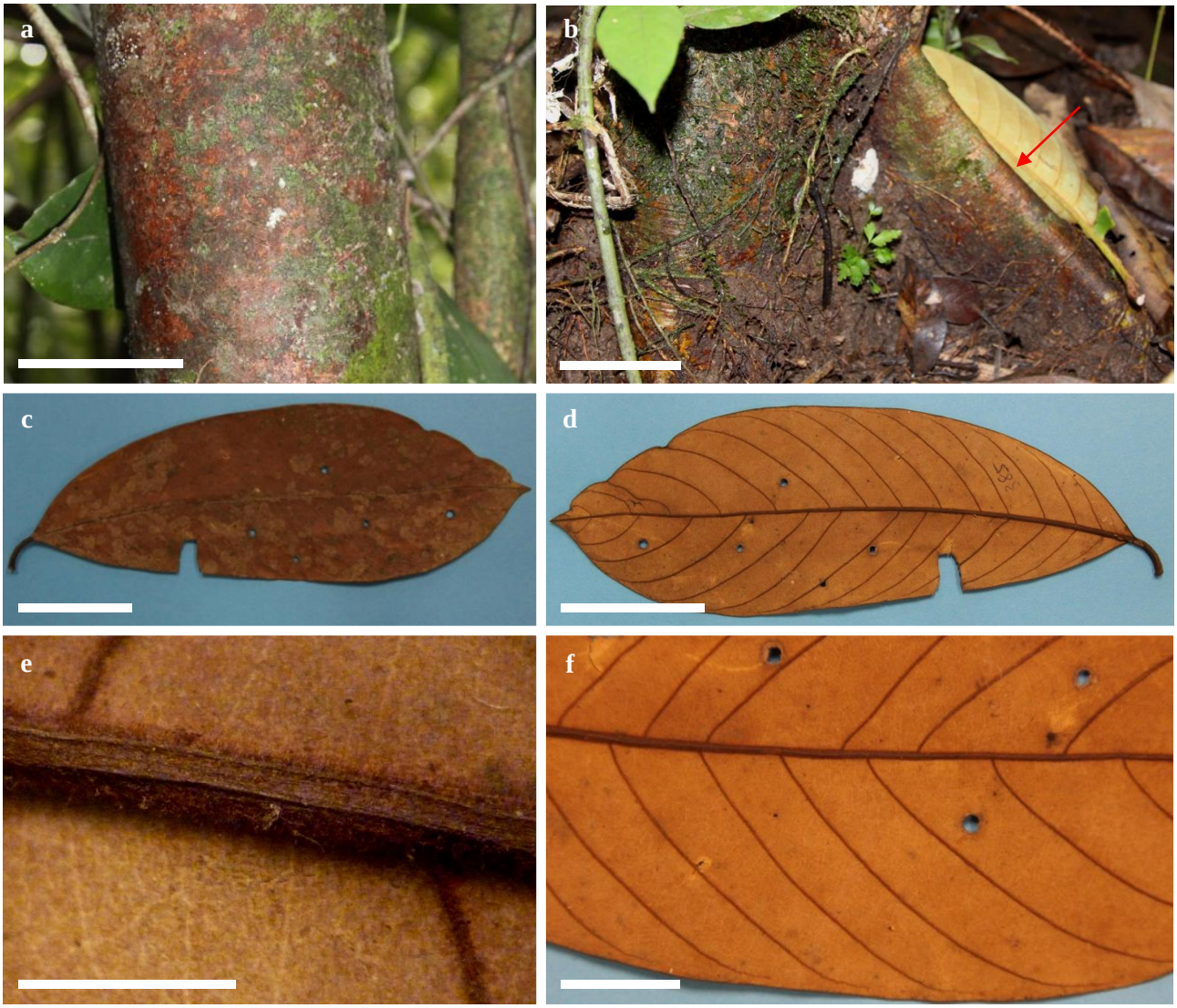
Lavallea ceylanica (Gardner) Baill.: a, sapling; b, alternate leaves; c, lower surface of the leaf; d, upper surface of the leaf; e, close-up of a leaf stalk with a slightly swollen base (arrowed). Scale bars = 5 cm (a, d), 10 cm (b), 2 cm (c), 1 cm (e). (Photographs by: Tan Siu Yueh [a, c–e] and Teo Siyang [b]).

Scientific Name	*Lavallea ceylanica* (Gardner) Baill.
Main Group Key that Applies	Trees and Shrubs
Etymology	*Lavallei*, to commemorate Pierre Alphonse Martin Lavalleé, a French botanist; *ceylanica* a reference to its distribution in Ceylon (now called Sri Lanka)
Synonyms	*Strombosia ceylanica* Gardner; *Strombosia maingayi* (Mast.) Whitmore; *Strombosia multiflora* King; *Strombosia rotundifolia* King
Common Name	Malay: petaling air
Scientific Family Name	Olacaceae
Common Family Name	strombosia family
Origin	Sri Lanka and Southwest India, Sumatra, Peninsular Malaysia, Singapore, Anambas Islands, West and Central Java, and Borneo
Growth Form	It is a tree 10–20 m tall, with a straight trunk and grey to brown trunk bark, which peels off in scroll-shaped pieces.
Habitat	It is found in lowland forests and brushwood, mixed dipterocarp and secondary forests, often close to the sea, on well-drained, flat land or lower slopes up to an 800-m altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its alternate, two-ranked, stalked leaves have leaf blades that are egg-shaped to oblong, somewhat leathery and membranous. Leaf blades are smooth and somewhat shiny above when fresh, but become dull greenish-brown and parchment-like when dried. Its leaf stalk is slightly swollen near the base.
Flowers	Its flowers form in clusters of usually 3–6 from woody wart-like shoots. Its greenish-white petals are oblong, smooth on the outside, but slightly hairy except at the base inside.
Fruits	Its fruits are drupes which are green and club-shaped when young, becoming somewhat round, with concave bases when fully developed. It ripens from pink to a deep purple.
Uses and Folklore	It is used as timber for construction.
References	Sleumer, H., 1984. Olacaceae. *Flora Malesiana*, Series I, **10**: 1−29. Quattrocchi, U., 2000. *CRC World Dictionary of Plant Names: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. Volume 4.* CRC Press, London. 2,877 pp.



Litsea erectinervia Kosterm.: a, whitish green lower surface of the leaf blades; b, densely reddish brown-hairy leaf stalks and twig tip; c, alternate leaves. Scale bars = 5 cm (a), 1 cm (b), 10 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Litsea erectinervia* Kosterm.
Main Group Key that Applies	Trees and Shrubs
Etymology	*Litsea* is derived from the Chinese characters, '*li*' and '*tse*' meaning "little plum"; Latin *erectinervia*, upright nerves, a reference to the erect secondary veins on the leaf blades of this species
Synonym	–
Common Name	–
Scientific Family Name	Lauraceae
Common Family Name	cinnamon family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a medium-sized tree up to 30 m tall.
Habitat	It grows in lowland forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate leaves have leathery leaf blades that are egg-shaped to oblong, reddish-brown hairy below, and 13–22 by 4.5–7 cm. Its stalk and young twigs are also covered with rust-coloured hairs. Its midrib and secondary veins are sunken above.
Flowers	Its yellow flowers develop in clusters of the leaf axils of twigs.
Fruits	Its fruits are downward-flattened, round, 1.7 cm-wide, and seated on the calyx.
Uses and Folklore	It has horticultural potential.
References	Kochummen, K. M., 1989. Lauraceae. *Tree Flora of Malaya*, **4**: 98−178. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 1 Feb.2011). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Litsea ferruginea Blume: a, smooth trunk bark; b, short buttress root (arrowed); c, upper surface of a leaf; d, lower surface of a leaf; e, midrib of leaf is hairy; f, secondary veins of the leaf are curved towards the leaf tip near leaf blade margin. Scale bars = 5 cm (a–d), 0.5 cm (e), 2 cm (f). (Photographs by: Koh Choon Yen).

Scientific Name	*Litsea ferruginea* Blume
Main Group Key that Applies	Trees and Shrubs
Etymology	*Litsea*, derived from the Chinese characters, '*li*' and '*tse*' meaning "little plum"; Latin *ferruginea*, rust-coloured, a reference to the twigs and leaves of this species
Synonyms	*Actinodaphne blumii* Nees; *Cryptocarya ferruginea* Blume; *Cylicodaphne ferruginea* Blume; *Cylicodaphne leefeana* F.Muell.; *Lepidadenia ferruginea* Miq.; *Malapoenna ferruginea* Kuntze; *Tetranthera blumii* Nees
Common Name	–
Scientific Family Name	Lauraceae
Common Family Name	cinnamon family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Java
Growth Form	It is a medium-sized tree up to 21 m tall with a dark grey trunk bark and short buttresses up to 1 m high.
Habitat	It grows in lowland and hill forests. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its opposite leaves have leaf blades that are leathery, oblong or drop-shaped, and 6–21 by 3–9 cm. The stalks and underside of the leaf blade are covered with reddish-brown hairs. Its midrib is raised above, and secondary nerves loop and join near the leaf blade margins.
Flowers	Its white-yellow flowers develop in clusters from leafless twigs and are covered with reddish hairs.
Fruits	Its round fruits are 2 cm wide, and seated on a 1.5 cm deep, warty calyx.
Uses and Folklore	It has horticultural potential.
References	Kochummen, K. M., 1989. Lauraceae. *Tree Flora of Malaya*, **4**: 98−178. Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 1 Feb.2011). Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Lomariopsis lineata (C.Presl) Holttum: a, climber habit; b, pinnate (left) and simple (right) leaves of the fern. Scale bars = 20 cm (a), 10 cm (b). (Photographs by: Koh Choon Yen).

Scientific Name	*Lomariopsis lineata* (C.Presl) Holttum
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Latin *Lomariopsis*, *Lomaria*-like, a reference to marginal sori; Latin *lineata*, with lines or stripes
Synonym	*Olfersia lineata* C.Presl
Common Name	–
Scientific Family Name	Lomariopsidaceae
Common Family Name	lomariopsis family
Origin	Tanintharyi, Southern Thailand, Southern Vietnam, and throughout Malesia (including Singapore) except East New Guinea
Growth Form	It is a high-climbing fern with a broad and fleshy rhizome that bears several rows of leaves. The tip of the rhizome is covered with brown scales of 1 cm or more in length.
Habitat	It grows in lowland forest and on hills of moderate elevations, often in wet and swampy areas. It is known locally from Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	This plant has two kinds of leaves. In the lower parts of the plant, leaves are simple and consist of a leaf stalk and leathery leaf blade. In the upper parts of the plant, stalked, pinnate leaves are developed. The pinnate leaves are about 80 by 30 cm and each has up to 20 pairs of lateral leaflets and a terminal leaflet. The leaflet blades are oblong, about 20 by 5 cm, and each has a pointed tip of up to 3 cm long. The leaflets of a fertile leaf are very much reduced, each about 8–15 by 0.3–0.6 cm.
Sori	Its sori (clusters of sporangia) are borne on the thread-like fertile leaflets.
Uses and Folklore	–
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya, Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Holttum, R. E., 1978. Lomariopsis Group. *Flora Malesiana*, Series II, **1**: 255−330. Lindsay, S. & D. J. Middleton, 2012 onwards. *Ferns of Thailand, Laos and Cambodia.* http://rbg-web2.rbge.org.uk/thaiferns/factsheets/index.php?q=Lomariopsis_lineata.xml. (Accessed 29 Jul. 2013). Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Turner, I. M. & Chua, K. S., 2011. *Checklist of The Vascular Plant Species of Bukit Timah Nature Reserve*. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore. 85 pp.

Lycopodiella cernua (L.) Pic.Serm.: a, herbaceous habit; b, the needle-like leaves on the branches; c, cone-like strobili; d, prickly branches. Scale bars = 1 cm (a, c, d), 5 cm (b). (Photographs by: www.NatureLoveYou.sg [a, c, d] and Koh Choon Yen [b]).

Scientific Name	*Lycopodiella cernua* (L.) Pic.Serm.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Latin *Lycopodiella*, diminutive of *Lycopodium*, means "little wolf's foot", a reference to the strobili and stem tips; Latin *cernua*, nodding, referring the pendulous strobili of this species
Synonyms	*Lepidotis cernua* (L.) P.Beauv.; *Lycopodium boryanum* A.Rich.; *Lycopodium capillaceum* (Spring) Hieron.; *Lycopodium capillaceum* Spring; *Lycopodium cernuum* L.; *Lycopodium cernuum* L. var. *capillaceum* Spring; *Lycopodium cernuum* L. var. *cernuum*; *Lycopodium cernuum* L. var. *panamense* Nessel; *Lycopodium cernuum* L. var. *watsonianum* Nessel; *Lycopodium heeschii* Müll. Hal.; *Lycopodium moritzii* Muell.; *Palhinhaea capillacea* (Spring) Holub; *Palhinhaea cernua* (L.) Franco & Vasc.
Common Names	English: arching clubmoss, common lycopodium, creeping club moss, monkey's paws, nodding clubmoss, scrambling clubmoss, staghorn clubmoss; Malay: paku lumput, paku merak, paku selemah, paku serani, paku tanjung, remu maunga, rumput kerangas, rumput serani; Chinese: 过山龙 (guò shān lóng), 筋骨草 (jīn gǔ cǎo)
Scientific Family Name	Lycopodiaceae
Common Family Name	clubmoss family
Origin	Tropics and subtropics of the World, except the driest areas
Growth Form	It is a terrestrial herb with two kinds of stems—creeping and erect. The former, often being overlooked, creeps on the ground and grows indefinitely and roots at intervals. The erect stem is extensively branched and very leafy. Needle-like leaves are spirally arranged along the stems, giving each stem a unique bottlebrush appearance, resembling a tiny pine tree. When environmental conditions are harsh, the leafy parts die off, leaving behind only the creeping stem as the plant remains dormant. It regrows when the conditions become favourable.
Habitat	It grows in rainforest edges, grasslands, along marshy streams, in freshwater swamp forest, on cliff faces and even poorly-drained reclaimed land. It is known locally from Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Geylang, Pulau Tekong, Pulau Tekong Kechil, Sembawang, and many other sites.
National Conservation Status	Common
Foliage	Its linear, pointed leaves are abundant and small, each reaching 3–5 mm long and 0.5 mm wide. The leaves spread outwards and bend backwards in the upper portions of the branches.
Strobili	Its unbranched, cone-like strobili are at the branch tips. These strobili are solitary and pendulous.
Uses and Folklore	The plant can be used as a sediment filter or water purifier to enhance water quality in wetlands or semi-aquatic areas so is a potential candidate for phytoremediation as the plant has also displayed ability to remove copper and lead from contaminated sites. Alternatively, it has been made into insect repellent and handicrafts like baskets. Rich in alkaloids, the lycophyte is applied, either singly or with other traditional herbs, to alleviate symptoms of stomach ulcers, arthritis, gout, beri-beri, and asthma.
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Johnson, A., 1977. *The Ferns of Singapore Island. 2nd Edition.* Singapore National Printers (Pte.) Ltd., Singapore. 126 pp. Tagawa, I. & Iwatsuki, K., 1979. Pteridophytes. Part I: Psilotaceae to Dennstaedtiaceae. *Flora of Thailand*, **3**: 1–128.

Lygodium longifolium (Willd.) Sw.: a, climbing leaf; b, digitately-lobed leaflet; c, close-up of leaflet lobes showing the minutely toothed blade margins. Scale bars = 10 cm (a), 5 cm (b), 1 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Lygodium longifolium* (Willd.) Sw.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Lygodium*, twining, a reference to the long, climbing leaf of the ferns of this genus; Latin *longifolium*, long-leaved, referring to the long, climbing leaf of this species
Synonym	*Hydroglossum longifolium* Willd.
Common Name	–
Scientific Family Name	Lygodiaceae
Common Family Name	lygodium family
Origin	Southern India, Hainan, Sumatra, Malaysia, Singapore, and the Riau and Lingga Islands
Growth Form	It is a sun-loving, climbing fern with leaves up to several meters long.
Habitat	It grows in open areas of lowland primary and secondary forests or cleared places, up to 1,500 m in altitude. It is known locally from Bajau, Bukit Timah, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Choa Chu Kang, and Tampines.
National Conservation Status	Vulnerable
Foliage	Its long, climbing leaves bear leaflets with rather leathery blades that are digitately divided into 4–7 lobes, and about 18 by 1.8 cm. The leaflet blade margins are shallowly toothed.
Sori	Its sporangia are formed on cone-like lobes that are usually 0.2–0.3 cm long and developed along the leaflet blade margins.
Uses and Folklore	–
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Holttum, R. E., 1959. Schizaeaceae. *Flora Malesiana*, Series II, **1**: 37−61. Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Macaranga gigantea (Rchb.f. & Zoll.) Mull.Arg.: a, spirally arranged leaves. The brown stipules (arrowed) are persistent. b, lobed and thickly leathery leaf blades; c, clear, yellowish sap from the cut end of a leaf stalk; d, capsules; e, trunk showing a leaf scar (arrowed); f, young leaf with toothed leaf blade margins. Scale bars = 10 cm (a), 20 cm (b) 1 cm (c, d), 5 cm (e, f). (Photographs by: www.NatureLoveYou.sg [a, d–f] and Tan Siu Yueh [b, c]).

Scientific Name	*Macaranga gigantea* (Rchb.f. & Zoll.) Mull.Arg.
Main Group Key that Applies	Trees and Shrubs
Etymology	*Macaranga* may be derived from a local name in Madagascar or from Sanskrit words that mean "body of monkey"; Latin *gigantea*, unusually large, referring to its leaves
Synonyms	*Macaranga incisa* Gage; *Macaranga megalophylla* (Müll.Arg.) Müll.Arg.; *Macaranga rugosa* (Müll.Arg.) Müll.Arg.; *Mappa gigantea* Rchb.f. & Zoll.; *Mappa macrophylla* Kurz ex Teijsm. & Binn.; *Mappa megalophylla* Müll.Arg.; *Mappa rugosa* Müll.Arg.; *Rottlera gigantea* (Rchb.f. & Zoll.) Rchb.f. & Zoll. ex Kurz; *Tanarius giganteus* (Rchb.f. & Zoll.) Kuntze; *Tanarius megallophyllus* (Müll.Arg.) Kuntze; *Tanarius rugosus* (Müll.Arg.) Kuntze
Common Names	English: elephant's ear, giant mahang; Malay: banik, cia kubit, kubang, kubin, mahang gajah, mengkubung, sekubin, selaru, sepedas, telinga gajah
Scientific Family Name	Euphorbiaceae
Common Family Name	rubber tree family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a bushy tree that can grow up to 15 m tall with a spreading dome-shaped large-leafed crown, and massive twigs.
Habitat	It grows in gaps in primary forests, secondary forests, in scrub to grasslands, up to 1,400 m in altitude. It occurs locally in Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Pulau Tekong, Pulau Ubin, and the Western Catchment Area.
National Conservation Status	Common
Foliage	Its spirally arranged leaves have stalks that are attached near to the centre of the underside of the leaf blades. Its leaf blades are thickly leathery, broadly egg-shaped, 20–80 cm long and wide, 3–5-lobed, sticky, grey-green and hairy below.
Flowers	Its flowers are tightly clustered on flowering shoots (inflorescences). Its male inflorescences are 15–50 by 10–30 cm, while female inflorescences are 12–25 by 6–12 cm.
Fruits	Its fruits are capsules that develop in bunches, 4–5 by 6–8 mm, and each consists of two compartments. Its seeds are lens-shaped, 4 mm across, black, and each encased in purple covering (aril).
Uses and Folklore	Its wood can be used to build walls, and make windmills for scaring birds. The root-bark can treat diarrhoea and dysentery. Its leaves are used for wrapping up packets. Its gum can be used as glue. This tree may be suitable for parks, and large gardens, and may tolerate and roadside conditions.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II.* Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Keng, H., 1990. *The Concise Flora of Singapore Gymnosperms and Dicotyledons*. Singapore University Press. National University of Singapore. 222 pp. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 28 Dec.2010). Slik, J. W. F., Priyono & P. C. van Welzen, 2000. Key to the *Macaranga* Thou. and *Mallotus* Lour. Species (Euphorbiaceae) of East Kalimantan, Indonesia. *The Gardens' Bulletin, Singapore*, Supplement, **52**: 11−87.

Macaranga recurvata Gage: a, base of trunk bearing short, leafy branches; b, upper surface of leaf blade; c, lower surface of leaf showing its peltate condition with the leaf stalk attached to the lower surface rather than the margin of the leaf blade; d, stipules (arrowed). Scale bars = 10 cm (a), 5 cm (b, c), 1 cm (d). (Photographs by: Koh Choon Yen).

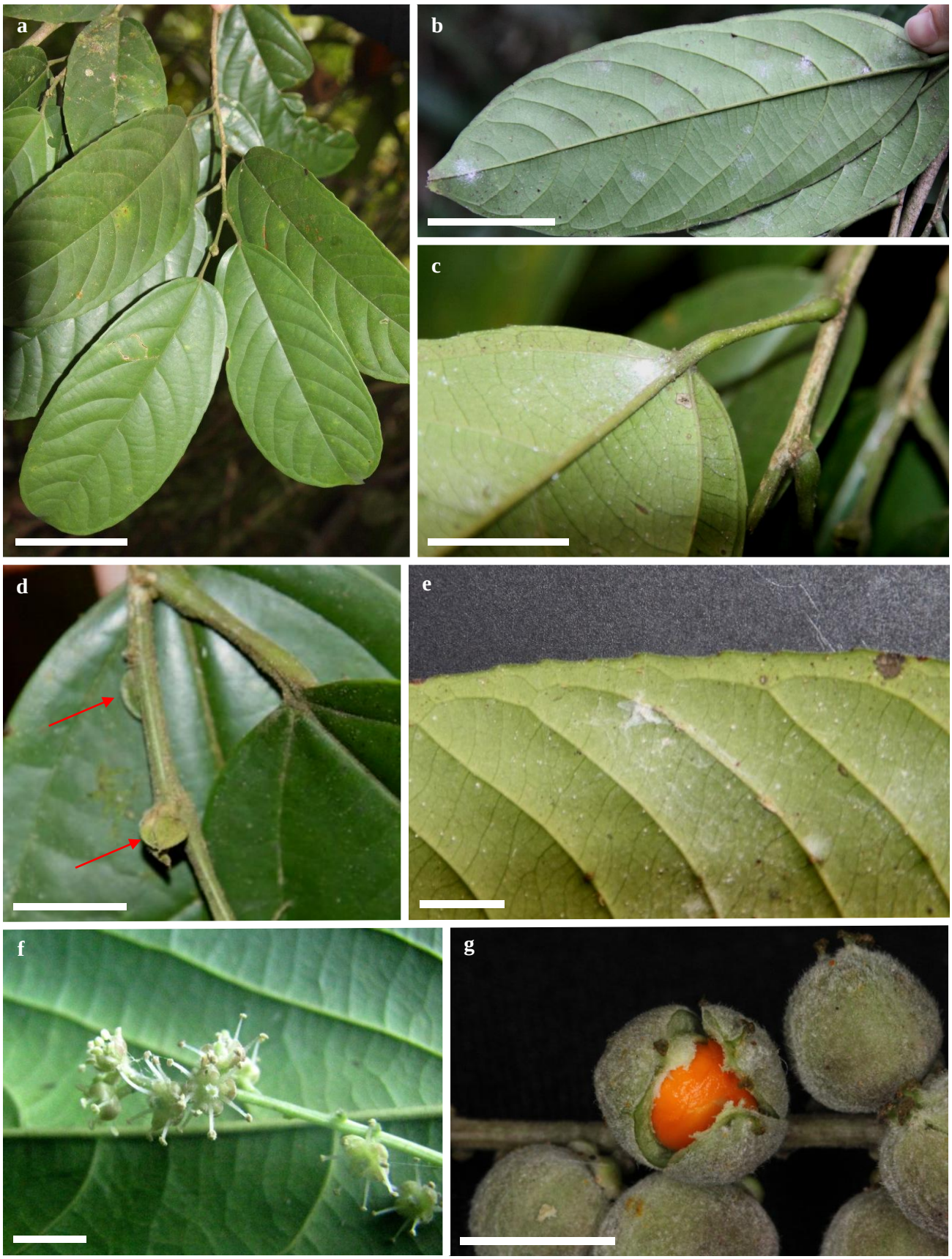
Scientific Name	*Macaranga recurvata* Gage
Main Group Key that Applies	Trees and Shrubs
Etymology	*Macaranga* may be derived from a local name in Madagascar or from Sanskrit words that mean "body of monkey"; Latin *recurvata*, recurved (curved backward), referring to its recurved leaf blade margins
Synonym	–
Common Name	Malay: kubin
Scientific Family Name	Euphorbiaceae
Common Family Name	rubber tree family
Origin	Sumatra, Peninsular Malaysia, Singapore, East Java, Borneo, and Lesser Sunda Islands
Growth Form	It is a tree that can grow up to 30 m tall with stout twigs, and often with a few prop roots.
Habitat	It grows in primary and secondary forests, and often in swampy areas, up to a 1,700-m altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged leaves have stalks that are attached to the undersides of the leaf blades rather than the margins. Its leaf blades are stiff, leathery, egg-oblong-shaped, 22–45 by 16–34 cm, whitish green and densely dotted with glands below, with toothed and slightly backward-curved margins. Its young leaves are violet-purple.
Flowers	Its tiny flowers develop in 10–20 cm long and green flowering shoots (inflorescences) that occur in the leaf axils.
Fruits	Its fruits are capsules that develop in clusters along stalks, are greyish-green, covered with sticky, yellowish powder, 1.3 cm across, and each possessing 2–4 compartments. Its seeds are round, and 4 mm across.
Uses and Folklore	It has horticultural potential as an ornamental tree.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition*. The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Keng, H., 1990. *The Concise Flora of Singapore Gymnosperms and Dicotyledons*. Singapore University Press, National University of Singapore. 222 pp. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Slik, J. W. F., Priyono & P. C. van Welzen, 2000. Key to the *Macaranga* Thou. and *Mallotus* Lour. species (Euphorbiaceae) of East Kalimantan, Indonesia. *The Gardens' Bulletin, Singapore*, Supplement, **52**: 11−87. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van Welzen, P. C. (ed.), 2010. *Flora Malesiana Euphorbiaceae*. Nationaal Herbarium Nederland, Leiden. http://www.nationaalherbarium.nl/euphorbs/. (Accessed 22 Dec.2010). Whitmore, T. C., 1973. Euphorbiaceae. *Tree Flora of Malaya*, **2**: 34−136.

Meliosma simplicifolia (Roxb.) Walp. ssp. *fruticosa* (Blume) Beus.-Osinga: a, spirally arranged leaves; b, leaf stalks that are thickened basally (arrowed); c, toothed leaf blade margins; d, greyish-brown trunk bark of with lenticels. Scale bars = 10 cm (a), 2 cm (b–d). (Photographs by: Tan Siu Yueh).

Scientific Name	*Meliosma simplicifolia* (Roxb.) Walp. ssp. *fruticosa* (Blume) Beus.-Osinga
Main Group Key that Applies	Shrub
Etymology	Greek *měli*, honey; Greek *ŏsmē*, fragrance, referring to the honey-scented flowers; Latin *simplifolius*, with simple leaves, referring to the leaf type of this species; Latin *fruticosa*, shrubby and dwarf.
Synonyms	*Meliosma elliptica* Hook.f.; *Meliosma lancifolia* Hook.f.
Common Name	–
Scientific Family Name	Sabiaceae
Common Family Name	sabia family
Origin	Sumatra, South Peninsular Thailand, Peninsular Malaysia, Singapore, Java, Borneo, the Philippines, Lesser Sunda Islands, and Taiwan
Growth Form	It is a shrub or small tree up to 20 m tall.
Habitat	It grows in primary rainforests and on many soil types ranging from limestone to volcanic loams. It can be found in Mandai and Nee Soon Swamp forests.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked leaves have leaf blades that are oblong to lance-shaped, often with toothed margins, 5–45 by 2–15 cm, with tapered apex and base. The midribs are covered with dense hairs above and smooth and hairless or slightly hairy below. There are 7–25 pairs of veins that are occasionally hairy.
Flowers	Its flowers occur singly or in clusters and have petals that are two-lobed. The lobes are rather narrow with little hair-like projections along the margins.
Fruits	Its round or egg-shaped fruits are 4.5–8 mm. The fruits are yellow to light red and ripen to brown.
Uses and Folklore	The timber is used to build furniture.
References	Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van Beusekom, C. F., van de Water, Th. P. M., 1989. Sabiaceae. *Flora Malesiana*, Series I, **10**: 679−715. Saw, L. G., 1989. Sabiaceae. *Tree Flora of Malaya*, **4**: 429−431.

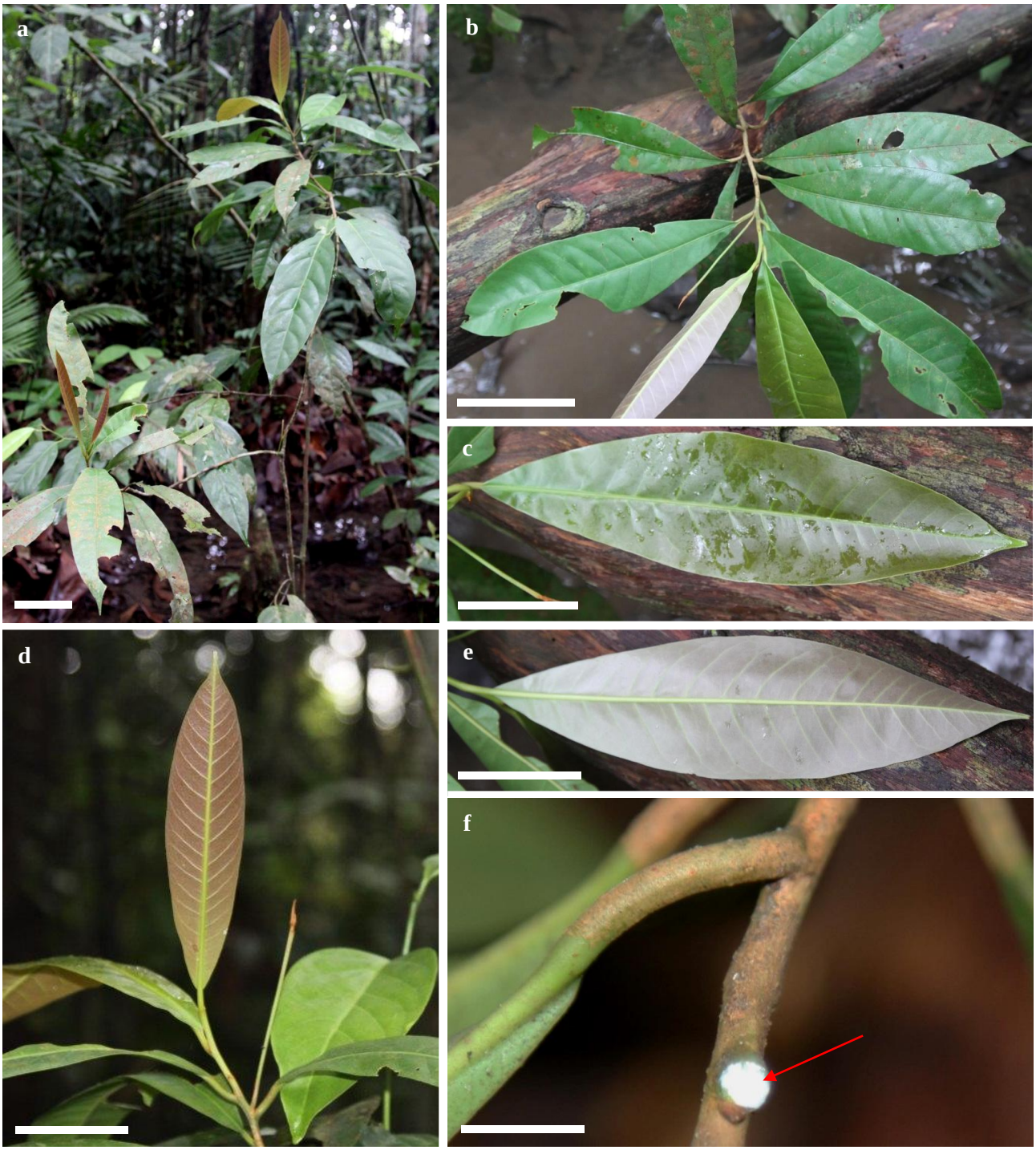
Mesophlebion chlamydophorum (Rosenst. ex C.Chr.) Holttum: a, habit; b, close-up of a leaflet showing the last veins (arrowed) that arise from midrib; c, pinnate leaf. Scale bars = 10 cm (a, c), 2 cm (b). (Photographs by: Koh Choon Yen).

Scientific Name	*Mesophlebion chlamydophorum* (Rosenst. ex C.Chr.) Holttum
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Latin *Mesophlebion*, derived from *meso*, between or middle, *phleb*, vein, a reference to which is unknown; Latin *chlamydophorum*, bearing an indusium or membrane that covers the sori
Synonyms	*Dryopteris chlamydophora* Rosenst. ex C.Chr.; *Mesoneuron chlamydophoron* (Rosenst. ex C.Chr.) Ching
Common Name	–
Scientific Family Name	Thelypteridaceae
Common Family Name	–
Origin	Sumatra, Malaysia, and Singapore
Growth Form	It is medium-sized terrestrial fern, usually to 0.7 m tall.
Habitat	It grows in lowland, mid-mountain and freshwater swamp forests, up to 1,400 m in altitude. It is known locally from Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), and Choa Chu Kang.
National Conservation Status	Vulnerable
Foliage	Its leaves are pinnate and stalked, up to 80 by 30 cm. Each mature leaf has about 21 pairs of lobed leaflets that are usually less than 2 cm wide. There are about 10 pairs of veins that are free in each leaflet lobe. The last vein is derived from the midrib of the leaflet (costa) whereas the rest of the veins are from the secondary veins (costules).
Sori	Its circular sori (clusters of sporangia) are covered with membrane, one on each vein of a fertile leaf.
Uses and Folklore	–
References	Backer, C. A., 1936. *Verklarend Woordenboek.* Visser & Co., Batavia. 664 pp. Gledhill, D., 2008. *The Names of Plants. 4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition.* Government Printing Office, Singapore. 653 pp. Lindsay, S. & D. J. Middleton, 2012 onwards. *Ferns of Thailand, Laos and Cambodia.* http://rbg-web2.rbge.org.uk/thaiferns/factsheets/index.php?q=Cyclosorus_crassifolius.xml. (Accessed 29 Jul. 2013). Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants.* Cassell Publishers Limited, London. 363 pp.



Osmelia philippina (Turcz.) Benth.: a, alternate leaves; b, lower surface of the leaf; c, leaf stalk; d, stipules (arrowed); e, slightly toothed leaf blade margin; f, flowers; g, dehisced and undehisced fruits. Scale bars = 5 cm (a, b), 2 cm (c), 1 cm (d–g). (Photographs by: Koh Choon Yen [a–e], www.florasingapura.com [f], and Ang Wee Foong [g]).

Scientific Name	*Osmelia philippina* (Turcz.) Benth.
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *Osmelia*, fragrance of honey, probably in reference to the flowers; *philippina*, from the Philippines, referring to one locality of its natural distribution
Synonym	–
Common Name	–
Scientific Family Name	Salicaceae
Common Family Name	willow family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, the Philippines, North and Central Celebes, Moluccas, and North and Southeast Papua New Guinea
Growth Form	Shrub or tree up to 8 m tall. Its bark is yellowish-grey and peels off in plates. Branches are usually pale grey and hairless. Younger branches are covered with short hairs that contribute to the grey colouration.
Habitat	It is found in primary forests up to a 500-m altitude. It is known locally from Bukit Mandai, Bukit Timah, Kranji, Mandai Road, Nee Soon Swamp Forest, and Seletar.
National Conservation Status	Endangered
Foliage	Its alternately-arranged, simple leaves have hairless leaf blades that are thin and soft to papery or rarely, leathery. Its midrib and leaf veins sometimes bear soft fine hairs on their undersides. The leaves are oblong to elliptic-oblong, and 7–17 by 3–10 cm. The leaf blade's tip is tapered and margins entire to slightly toothed. The leaf stalks are up to 1 cm long and hairy. Dry leaves are green to brownish and slightly shiny. The stipules are very densely hairy.
Flowers	Its inflorescences are either developed in the upper leaf axils and appear terminal or at the lower axils. They are 10–30 cm long and bear stalkless, greenish, unisexual flowers.
Fruits	Its fruits are capsules that are oblong to slightly round with three rounded angles that narrow towards base and apex, and 1–1.5 cm long. The dry capsules are covered with dense yellow to grey hairs but are velvety red when fresh. Each fruit bears 1–2 or sometimes more flattened round seeds 5 mm long with a yellow fleshy aril.
Uses and Folklore	Its pale or yellowish white wood is odourless, tasteless, hard, and is used in North Celebes for house building.
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Sleumer, H., 1968. Flacourtiaceae. *Flora Malesiana*, Series I, **5**: 1–106.



Palaquium xanthochymum (de Vriese) Pierre ex Burck: a, sapling; b, spirally arranged leaves; c, upper surface of a young leaf; d, lower surface of a young leaf; e, shiny and reddish lower surface of leaf blade; f, white latex from the cut end of a leaf stalk. Scale bars = 10 cm (a, b), 5 cm (c–e), 1 cm (f). (Photographs by: Koh Choon Yen).

Scientific Name	*Palaquium xanthochymum* (de Vriese) Pierre ex Burck
Main Group Key that Applies	Trees or Shrubs
Etymology	*Palaquium*, from the Philippino vernacular name, palak-palak, for the gutta-percha tree, *Palaquium gutta*; Greek *xanthos*, yellow; Latin, *chymus*, sap, referring to this species' latex
Synonyms	*Croixia xanthochyma* (de Vriese) Baehni; *Dichopsis rubens* C.B.Clarke; *Isonandra xanthochyma* de Vriese; *Palaquium lanceolatum* Burck; *Palaquium rubens* (C.B.Clarke) Engl.; *Palaquium xanthochymum* (de Vriese) Pierre ex Burck var. *montanum* H.J.Lam; *Palaquium xanthochymum* (de Vriese) Pierre ex Burck var. *puberulum* H.J.Lam
Common Name	Malay: nyatoh kabu
Scientific Family Name	Sapotaceae
Common Family Name	sapodilla family
Origin	Sumatra, Peninsular Malaysia, Singapore, Java, Borneo, and the Philippines
Growth Form	It is a large tree up to 40 m tall with buttresses and large branching prop roots.
Habitat	It grows in lowland and occasionally swampy forests. It occurs locally in the Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged leaves have leaf blades that are papery or slightly leathery, often drying reddish, and 6.5–15.6 by 2.7–6 cm. The leaf blades are drop- or spatula-shaped with a broad and slightly indented tip. In young trees, the leaf blade tip is usually slightly pointed. Its leaf base is tapered.
Flowers	Its white flowers are about 1 cm long and grow in clusters of 6–8 at the leaf axils. The petals are oblong and blunt tipped.
Fruits	Its egg-shaped or round berries are 3.5 by 1.2 cm and smooth. The berries are attached to stalks 0.5–1.2 cm long. Its exendospermous seeds occur singly and are slightly smaller than the fruits.
Uses and Folklore	Its wood is used to build boats.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Ridley, H. N., 1923. *The Flora of the Malay Peninsula*. *Volume 2.* L. Reeve & Co., Ltd, London. vi + 672 pp. Whitmore, T. C., 1972. Sapotaceae. *Tree Flora of Malaya*, **1**: 388−439.

Pandanus atrocarpus Griff.: a, habit; b, lower surface of the leaf blade, showing the toothed margins and spiny midrib; c, upper surface of the leaf blade, showing the spiny veins; d, m-shaped cross-section of the leaf blade. Scale bars = 2.5 cm (b–d). (Photographs by: www.florasingapura.com).

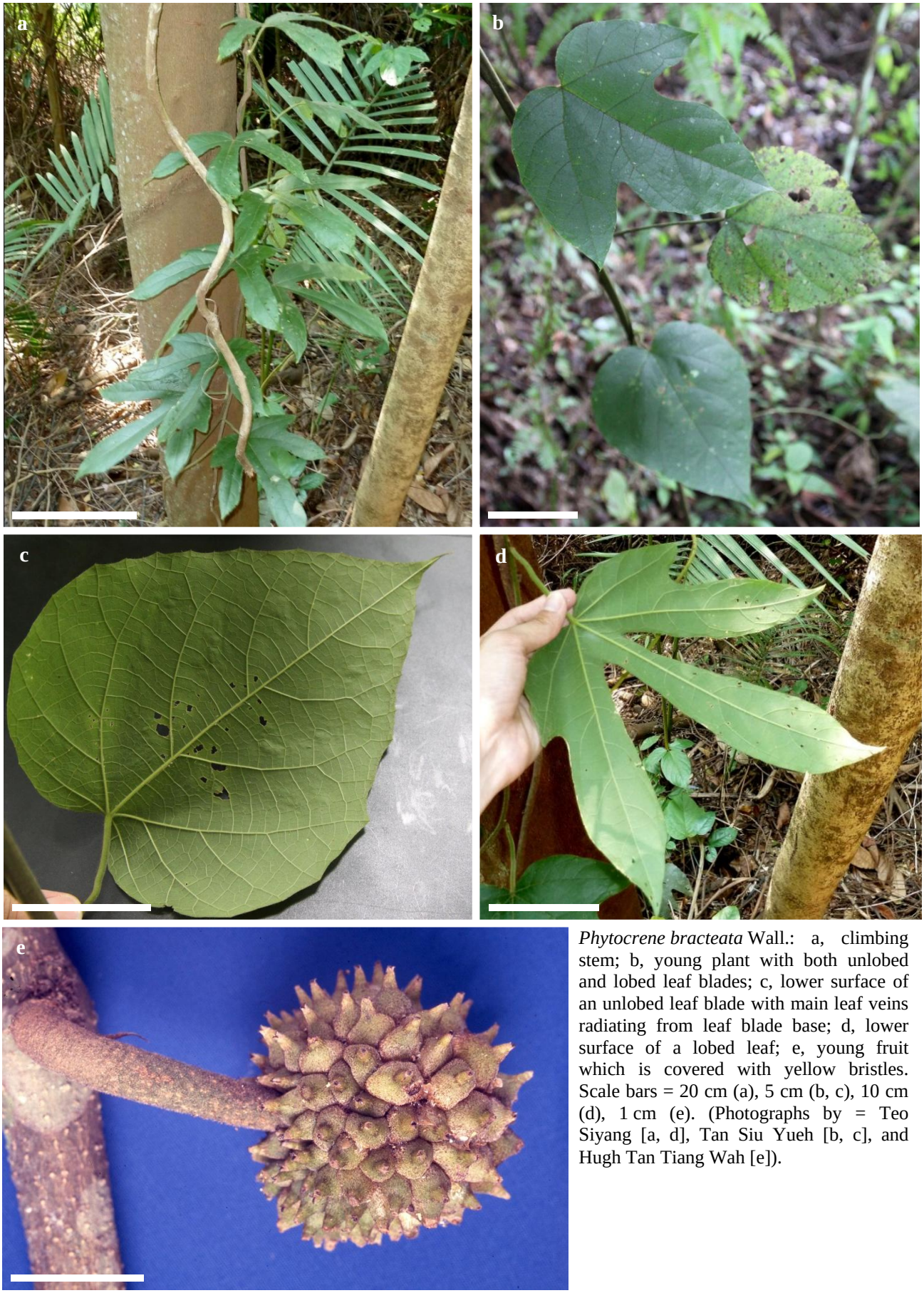
Scientific Name	*Pandanus atrocarpus* Griff.
Main Group Key that Applies	Trees or Shurbs
Etymology	Latin, *Pandanus*, from the Malayan name of this group of plant; Greek, *atro*, dark or black; Greek, *karpos*, fruit, a reference to the black seeds
Synonym	–
Common Names	Malay: bengkuang, mengkuang, pandan duri
Scientific Family Name	Pandanaceae
Common Family Name	screwpine family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a tree up to 18.5 m tall.
Habitat	It grows on wet ground, especially in lowland swamp forests. It occurs locally in MacRitchie Reservoir, Nee Soon Swamp Forest, and the Western Catchment Area.
National Conservation Status	Endangered
Foliage	Its spirally arranged leaves possess tough, leathery leaf blades that are linear, pointed at the tip, strongly keeled, and up to 6 m by 10.2 cm. Its leaf blade margins are sharply toothed like the midrib.
Flowers	Its male inflorescence is up to 60.7 cm long. The female inflorescence is 91.5–122 cm long.
Fruits	Its fruits are drupes of about 2.5 cm long.
Uses and Folklore	Its leaves are used to make mats, hats, and thatch for huts.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Manilla. 750 pp. Ridley, H. N., 1925. *The Flora of the Malay Peninsula*. *Volume 5*. L. Reeve & Co., Ltd, London. v + 469 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Parkia speciosa Hassk.: a, crown; b, young plant with a few bipinnate leaves; c, close-up of the leaf stalks that are swollen basally (arrowed); d, close-up of tree bark; e, inflorescences; f, long, twisted pods. Scale bars = 2 m (a), 10 cm (b), 1 cm (c), 5 cm (d–f). (Photographs by: www.NatureLoveYou.sg [a, e, f] and Holly Joy Siow May-Ping [b–d]).

Scientific Name	*Parkia speciosa* Hassk.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin, *Parkia*, commemorates Mungo Park, a Scottish explorer; Latin, *speciosa*, handsome, referring to the tree of this species
Synonyms	*Inga pyriformis* Jungh.; *Mimosa pedunculata* Hunter; *Parkia biglobosa* auct. non (Jacq.) R.Br.; *Parkia harbesonii* Elmer; *Parkia microcarpa* Miq.
Common Names	Malay: petai; Chinese:臭豆 (chòu dòu), 葱豆(cōng dòu)
Scientific Family Name	Fabaceae
Common Family Name	bean family
Origin	Sumatra, South Thailand, Peninsular Malaysia, Singapore, Borneo, and Palawan
Growth Form	It is an umbrella-shaped tree that can grow up to 45 m tall, with pinkish or reddish-brown trunk bark. It can form buttress roots.
Habitat	It grows in lowland rain forest, and is often cultivated for its bitter-tasting seeds which are a local delicacy. It is known locally in the Bukit Timah Nature Reserve and Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Vulnerable
Foliage	Its spirally arranged, stalked, bipinnate leaves are 11–45 cm long. The leaves have 11–25 pairs of leaflets, and each has 18–42 pairs of opposite, secondary leaflets which are oblong, and 3–12 by 1–3 mm. Glands are present on the leaf stalks.
Flowers	The bisexual flowers are tiny, cream-white, and form a dense pendulous bomb-shaped cluster at the tip of the inflorescence. The stalked inflorescence is 5.1–8.9 cm long.
Fruits	Its fruits are long, straight or twisted pods that are up to 51 by 6.5 cm, and green. Each pod contains about 18 seeds, which are bitter, foul-smelling, green, elliptic, up to 2.3 cm across.
Uses and Folklore	Its seeds, pods, young leaves, flower stalk can be eaten. The seeds are used as medicine and have a diuretic and relaxing effect. The bitter, foul-smelling seeds are also eaten raw or cooked as a delicacy.
References	Backer, C. A., 1936. *Verklarend Woordenboek.* Visser & Co., Batavia. 664 pp. Boo, C. M., K. Omar-Hor & C. L. Ou-Yang, 2006. *1001 Garden Plants in Singapore*. *2nd Edition.* National Parks Board, Singapore. 798 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. xxii + 861 pp + 236 pls. Hopkins, H. C. F., 1992. *Parkia.* In: Nielsen, I. C., Mimosaceae (Leguminosae–Mimosoideae). *Flora Malesiana*, Series I, **11**: 193–204. Tan, H. T. W. & T. Morgany, 2001. *A Guide to Growing the Native Plants of Singapore*. Singapore Science Center, Singapore. 168 pp.

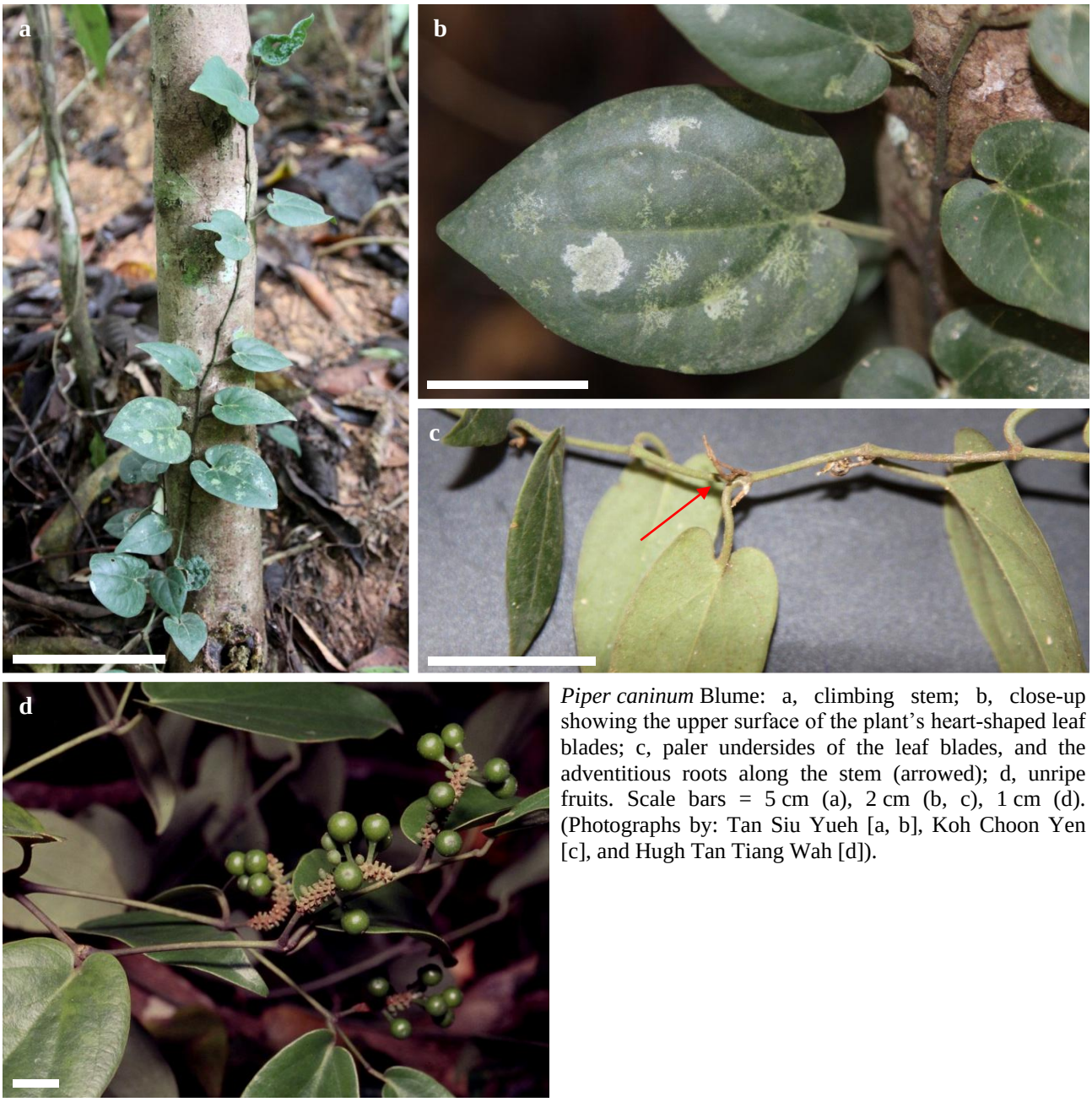
Pellacalyx axillaris Korth.: a, buttress roots of a mature tree; b, stipular scar between the opposite leaves; c, upper surface of fallen leaves; d, lower surface of fallen leaves; e, reddish young leaves; f, flowers. Scale bars = 10 cm (a), 1 cm (b, e, f), 5 cm (c, d). (Photographs by: www.florasingapura.com).

Scientific Name	*Pellacalyx axillaris* Korth.
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *pella*, hairs; Greek, *kalux*, calyx, referring to the hairy calyx; Latin *axillaris*, axillary, referring to the position of the flowers
Synonym	*Craterianthus fimbripetalus* Valeton ex K.Heyne
Common Names	Malay: bebuloh, buloh buloh, buloh, bulu-bulu, berbulu, mata keli, membuloh, membulu, pianggu jantan
Scientific Family Name	Rhizophoraceae
Common Family Name	bakau family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a small- to medium-sized, buttressed tree up to 25 m tall. The trunk has pale brown or pinkish buff bark which is finely cracked. It can be distinguished by its stiffly horizontal branches and drooping leaves. Its hollow twigs and buds are brown hairy. In swampy ground, the plant develops loop-like, breathing roots.
Habitat	It grows in lowland primary and secondary forests, especially along streams and swampy habitats, up to 1,300 m in altitude. It occurs locally in Bukit Timah Nautre Reserve, Chestnut Track, Mandai Forest, Nee Soon Swamp Forest, Old Upper Thompson Road, and Upper Peirce Reservoir.
National Conservation Status	Endangered
Foliage	Its opposite and stalked leaves possess thinly leathery leaf blades that are oblong and 10–22.8 cm by 3.2–6.4 cm. The lower surface of the leaf blades is covered with brown, star-shaped hairs. Its leaf blade margins are entire to toothed. Its stipules are brown hairy, about 10–15 mm long.
Flowers	Its yellowish green or white flowers are approximately 8.5 mm wide. The petals soon fall off, leaving behind calyx tubes that are relatively large. Its calyx lobes are distinctly curved backwards.
Fruits	Its fruits are egg-shaped or rather round and 10–18 by 8–16 mm, either occur singly or in pairs at the leaf axils. Each fruit contain numerous seeds.
Uses and Folklore	It is a source of timber.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Ding, H., 1955. Rhizophoraceae. *Flora Malesiana*, Series I, **5**: 429−493. Kochummen, K. M., 1989. Rhizophoraceae. *Tree Flora of Malaya*, **4**: 302−323. Ridley, H. N., 1922. *The Flora of the Malay Peninsula*. *Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Phytocrene bracteata Wall.: a, climbing stem; b, young plant with both unlobed and lobed leaf blades; c, lower surface of an unlobed leaf blade with main leaf veins radiating from leaf blade base; d, lower surface of a lobed leaf; e, young fruit which is covered with yellow bristles. Scale bars = 20 cm (a), 5 cm (b, c), 10 cm (d), 1 cm (e). (Photographs by = Teo Siyang [a, d], Tan Siu Yueh [b, c], and Hugh Tan Tiang Wah [e]).

Scientific Name	*Phytocrene bracteata* Wall.
Main Group Key that Applies	Climbers
Etymology	Greek *phyton*, a plant; Greek *krene*, a fountain, referring to the quantity of sap oozing out from its cut plant parts; Latin *bracteata*, having bracts (a modified leaf generally associated with the flower or flower cluster), referring to the bracts present in the male flowering shoot
Synonym	*Gynocephalum bracteatum* Trécul
Common Name	–
Scientific Family Name	Icacinaceae
Common Family Name	icacina family
Origin	Sumatra, Thailand, Peninsular Malaysia, Singapore, Lingga Islands, and Borneo
Growth Form	It is a woody climber with prickly stems.
Habitat	It grows in lowland hill forests, and on hedges. It occurs locally in Mandai Forest, the vicinities of MacRitchie, Nee Soon Swamp Forest, and Upper Peirce reservoirs.
National Conservation Status	Vulnerable
Foliage	Its spirally arranged, stalked leaves have papery to leathery leaf blades that are broadly egg-shaped, often 3-lobed, with pointed edges, and 10–25 by 7–20 cm. The undersides of the leaf blades are covered with soft, pale hairs. Its veins are palmate.
Flowers	The flowers are unisexual. The male flowering shoot is usually found from the leaf axils, up to 20 cm long, and bear one or up to three male flowers. The female flowers develop in flower-heads that are also found singly, or up to three together.
Fruits	Its somewhat round fruits are drupes, which are covered with yellowish bristles, up to 2.3 cm wide. They are found in large, drooping clusters.
Uses and Folklore	It has horticultural potential as an ornamental climber.
References	Keng, H., 1990. *The Concise Flora of Singapore. Gymnosperms and Dicotyledons.* Singapore University Press, Singapore. 222 pp. Patil, D. A., 2007. *Origins of Plant Names.* Daya Publishing House, New Delhi. viii + 287 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Sleumer, H., 1971. Icacinaceae. *Flora Malesiana*, Series I, **7**: 1−88.



Piper caninum Blume: a, climbing stem; b, close-up showing the upper surface of the plant's heart-shaped leaf blades; c, paler undersides of the leaf blades, and the adventitious roots along the stem (arrowed); d, unripe fruits. Scale bars = 5 cm (a), 2 cm (b, c), 1 cm (d). (Photographs by: Tan Siu Yueh [a, b], Koh Choon Yen [c], and Hugh Tan Tiang Wah [d]).

Scientific Name	*Piper caninum* Blume
Main Group Key that Applies	Climbers
Etymology	Greek *pěpěri*, pepper; Latin *caninus*, pertaining to dogs, applied metaphorically to an inferior kind, hence this species is dog pepper, a pepper inferior to commercial pepper (*Piper nigrum*)
Synonyms	*Cubeba canina* (Blume) Miq.; *Cubeba lanata* Miq.; *Piper kietanum* C.DC.
Common Names	English: dog's pepper; Malay: sirih hantu, sirih hutan
Scientific Family Name	Piperaceae
Common Family Name	pepper family
Origin	Southern Thailand through Malaysia, Indonesia, the Philippines, Brunei, Singapore, Papua New Guinea to Australia, and Solomon Islands
Growth Form	It is a slender climber, with hair covering its twigs, leaf and flower stalks, especially in female plants. Adventitious roots are found from the swollen leaf-bearing nodes too.
Habitat	It grows in lowland forests, at the base of trees or tree stumps. It occurs locally in Bukit Timah Nature Reserve, in the vicinity of Lower Peirce Reservoir, Nee Soon Swamp Forest, and the Upper Seletar Reservoir.
National Conservation Status	Common
Foliage	Its alternate, stalked leaves have papery leaf blades that are narrowly lance-shaped, tapering to long points, and up to 16 by 7 cm, green above and paler green below. The leaf blades also have bases that are unequal-sided to heart-shaped. The leaves are sparsely to thickly hairy, especially in female plants. Its leaf blades are dotted with glands and cystoliths that can be observed with micrscopes, especially in dried specimens.
Flowers	Its flowering shoots are found at the ends of leafy twigs. Its female flowering shoots are 6–12 mm long, while the male ones are 5–25 mm long.
Fruits	Its elongated fruiting clusters are usually not more than 3 cm long. Its thickly-stalked fruits are red berries, egg-shaped or round, and up to about 6 by 4 mm.
Uses and Folklore	It is cultivated as an ornamental climber. The leaves are taken as a betel-nut substitute. The leaves are also used to treat hoarseness, and make a wash for mothers after childbirth. The fruits are used as flavouring. They also smell of anise, and are smaller than those of cubeb (*Piper cubeba*), so used as its alternative.
References	Chew, W.-L., 1972. The genus *Piper* (Piperaceae) in New Guinea, Solomon Islands, and Australia, 1. *Journal of the Arnold Arboretum*, **53**: 1–25. de Guzman, C. C. & J. S. Siemonsma (eds.), 1999. *Plant Resources of South-East Asia No 13. Spices*. Backhuys Publishers, Leiden, the Netherlands. 400 pp. Jansen, P. C. M., 1999. *Piper caninum* Blume. In: de Guzman, C. C. & J. S. Siemonsma (eds.), *Proseabase*. PROSEA (Plant Resources of South-East Asia) Foundation, Bogor, Indonesia. http://www.proseanet.org/prosea/e-prosea_detail.php?frt=&id=540. (Accessed 24 May 2011). Ridley, H. N., 1924. *The Flora of the Malay Peninsula. Volume 3*. L. Reeve & Co., Ltd., London. vi + 405 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Suwanphakdee, C., S. Masuthon, P. Chantaranothai, K. Chayamarit & N. Chansuvanich, 2006. Notes on the genus *Piper* L. (Piperacae) in Thailand. *Thai Forest Bulletin (Botany)*, **34**: 206–214.

Piper cf. *flavimarginatum* C.DC.: a, habit; b, upper surface of a heart-shaped leaf blade; c, whitish lower surface of leaf blade; d, close-up of branch and leaf stalks which are covered with red spots (arrowed). Scales bars = 10 cm (a), 2 cm (b–d). (Photographs by: www.NatureLoveYou.sg).

Scientific Name	*Piper* cf. *flavimarginatum* C.DC.
Main Group Key that Applies	Climbers
Etymology	Greek *pěpěri*, pepper; Latin *flavi*, yellowish; Latin *marginatum*, having distinct margins, referring to the leaves with yellow margins
Synonym	–
Common Name	–
Scientific Family Name	Piperaceae
Common Family Name	pepper family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a stout woody climber that can be found on trees or creeping on ground.
Habitat	It grows in lowland forests on trees. It occurs locally in the Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have thick and waxy leaf blades that are egg-shaped with bases that are unequal-sided to heart-shaped. The leaf blades are 7.5–12 by 9 cm and have three pairs of veins that are curved towards the tip. Tertiary veins are numerous and fine. Its leaf stalks are 1.3–7.5 cm long with distinct and dense reddish brown spots.
Flowers	Its male flowering shoots are about 10 cm long.
Fruits	Its fruits are stalkless.
Uses and Folklore	–

References

Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp.

Ridley, H. N., 1924. *The Flora of the Malay Peninsula*. *Volume 3.* L. Reeve & Co., Ltd., London. vi + 405 pp.

Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Piper macropiper Pennant: a, leafy branch; b, upper surface of a leaf and the leaf blade with main veins radiating from the base; c, ear-shaped appendage (auricle) at the base of the leaf blade. Scale bars = 10 cm (a), 2 cm (b), 1 cm (c). (Photographs by: Tan Siu Yueh).

Scientific Name	*Piper macropiper* Pennant
Main Group Key that Applies	Climbers
Etymology	Greek *pěpěri*, pepper; Latin *macropiper*, large pepper, referring to the flowering shoot
Synonym	*Piper vaupelii* Lauterb.
Common Name	English: red-spiked pepper
Scientific Family Name	Piperaceae
Common Family Name	pepper family
Origin	India, Sri Lanka, through Malesia and New Guinea to the Solomon Islands
Growth Form	It is a unisexual climber with thickened nodes and variable leaves and twigs.
Habitat	It grows on trees and rocks in lowland forests. It occurs locally in Nee Soon Swamp Forest, and in the vicinity of MacRitchie Reservoir.
National Conservation Status	Critically endangered
Foliage	Its alternate, shortly-stalked leaves have rather broad, leathery leaf blades that are egg-shaped or elliptic, and about 16 by 6 cm, with five or six main veins arising near the base. The bases of the leaf blades are rounded or sometimes heart-shaped, sometimes unequal, with one side producing an ear-shaped appendage (auricle). The underside of its leaf blades can be smooth to densely hairy. Its leaf blades are dotted with glands and cystoliths that can be observed with a microscope, especially in dried specimens.
Flowers	Its slender, stalked, elongated flowering shoots are about 20 cm long, and usually as long as or longer than the leaves.
Fruits	Its stalkless fruits are round or egg-shaped, about 2.5 by 1.5 mm, found closely packed in dense finger-like spikes, with small and scale-like bracts (reduced leaves) between them. These spikes are about 14–15 cm long. Its seeds are ellipsoid and about 2 mm long.
Uses and Folklore	It has horticultural potential as an ornamental climber.
References	Chew, W.-L., 1972. The genus *Piper* (Piperaceae) in New Guinea, Solomon Islands, and Australia, 1. *Journal of the Arnold Arboretum*, **53**: 1–25. Commonwealth Scientific and Industrial Research Organisation, 2010 onwards. *Australian Tropical Rainforest Plants Edition 6*. http://keys.trin.org.au:8080/key-server/data/0e0f0504-0103-430d-8004-060d07080d04/media/Html/index.html. (Accessed 26 May 2011). Henderson, M. R., 1974. *Malayan Wild Flowers: Dicotyledons.* The Malayan Nature Society, Kuala Lumpur. 478 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Plectocomia elongata Mart. ex Blume: a, climbing habit; b, leaf sheaths are covered with rows of narrow, gold-grey spines; c, it is commonly observed that mature plants protrudes from the canopy. The narrow, elongated, spiny cirrus extends from each leaf tip. d, lower surface of the brownish leaflet. Scale bars = 1 m (a), 5 cm (b, d), 30 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Plectocomia elongata* Mart. ex Blume
Main Group Key that Applies	Climbers
Etymology	Greek, *plektos*, twisted; Greek, *komê*, crest, alluding to the shape of the inflorescence; Latin, *elongata*, lengthened or elongated, probably referring to the plant's long stem, inflorescence or cirrus
Synonym	*Rotang maximus* Baill.
Common Names	Malay: rotan boah, rotan buwai, rotan tikus
Scientific Family Name	Arecaceae (also Palmae)
Common Family Name	palm family
Origin	Peninsular Malaysia and Singapore
Growth Form	It is a large, climbing, unisexual rattan, up to 50 m tall. Its leaf sheaths are covered with rows of prominent, narrow, gold-grey spines.
Habitat	It grows in lowland and montane forests up to 2,000 m in altitude. It is known locally from Bukit Mandai, Kranji, Lorong Gambas, Nee Soon Swamp Forest, Seletar and the Western Catchment Area.
National Conservation Status	Vulnerable
Foliage	Its spirally arranged, pinnate leaves are about 3 m long and each equipped with a drooping, whip-like structure at the leaf apex (cirrus). Its rather leathery leaflets are oblong-lance-shaped, up to 30 by 8 cm, and always in clusters of 2–3. The lower surface of the leaflets is whitish or sometimes brownish.
Flowers	Its flowering spikes are up to 1.8 m long. The spikes are made up of numerous secondary spikes or spikelets. Male spikelets are about 2.5 cm long and each made up of 3–6 male flowers. Female flowers are larger and in groups of four.
Fruits	Its fruits are covered with scales. The scale margin is cut into narrow, irregular segments.
Uses and Folklore	The plant is used for making legs of long chairs, mining baskets or nooses for catching elephants.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Ridley, H. N., 1925. *The Flora of the Malay Peninsula*. *Volume 5*. L. Reeve & Co., Ltd, London. v + 469 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Pometia pinnata J.R.Forst. & G.Forst.: a, spirally arranged, pinnate leaves with oposite leaflets; b, upper surface of leaflet blades with toothed margins and prominent veins; c, lowest pair of ear-shaped leaflets (arrowed) is stipule-like; d, young reddish leaves; e, buttress roots of a mature tree; f, flowers on the inflorescence axis. Scale bars = 5 cm (a), 1 cm (b, c), 2 cm (d), 10 cm (e), 2 mm (f). (Photographs by: Koh Choon Yen [a–c], www.NatureLoveYou.sg [d], and www.florasingapura .com [e, f]).

Scientific Name	*Pometia pinnata* J.R.Forst. & G.Forst.
Main Group Key that Applies	Trees or Shrubs
Etymology	*Pometia* commemorates P. Pomet, a French writer; Latin *pinnata* refers to the pinnate leaves of this species
Synonyms	*Irina tomentosa* Blume; *Pometia pinnata* J.R.Forst. & G.Forst. f. *tomentosa* (Blume) Jacobs; *Pometia tomentosa* (Blume) Teijsm. & Binn.
Common Names	Malay: asam kuang, kasai, kasai bukit, kasai daun besar, kelisar, langsir, tatai; Chinese: 番龙眼 (fān lóng yǎn)
Scientific Family Name	Sapindaceae
Common Family Name	rambutan family
Origin	From South China and Sri Lanka, through Southeast Asia to Pacific Islands
Growth Form	It is a buttressed tree that can grow up to 50 m tall, with spreading buttresses up to 5 m tall.
Habitat	It can be found in primary and secondary forests, up to a 1,700-m altitude, and is common on riverbanks. It is known locally in Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Changi, and Pulau Tekong Kecil.
National Conservation Status	Endangered
Foliage	It has spirally-arranged, stalked, pinnate leaves that are more than 1 m long. Each leaf consists of 4–15 pairs of leaflets, but lacks a terminal leaflet. The leaflet blades are papery to leathery, red when young, hairless to hairy, egg-shaped to drop-shaped, slightly to distinctly sickle-shaped, 6–40 by 2–13 cm, and with toothed margins. The lowest pair of leaflets is smaller than the others, round, ear- or cushion-shaped, 0.4–3 by 0.3–5 cm, appearing like a stipule, and with 1 of the leaflets more reduced.
Flowers	The plant produces both male and female flowers in the same individual (monoecious). The flowers are 2–2.5 mm across, generally white to green-yellow, and are placed on branched inflorescences that are 15–70 cm long. Petals are hairy or occasionally hairless outside.
Fruits	It produces a fleshy fruit that contains a stone. Each fruit is flattened round to round, 1.5–5 by 1–3 cm, and red then black when ripe. The seed is egg-shaped, unequal-sided, up to 2.5 by 1.5 cm, brown, and with white covering (aril).
Uses and Folklore	Its timber that can be used for building houses, as well as making agricultural tools and furniture. Its leaves and bark have medicinal properties, and its fruits and roasted seeds can be eaten. In Borneo, powder from the tree bark can be used to treat chickenpox.
References	Adema, F., P. W. Leenhouts & P. C. van Welzen, 1994. Sapindaceae. *Flora Malesiana*, Series I, **11**: 419–768. Adema, F., P. W. Leenhouts & P. C. van Welzen, 1996. Sapindaceae. *Tree Flora of Sabah and Sarawak*, **2**: 263–374. Boo, C. M., K. Omar-Hor & C. L. Ou-Yang, 2006. *1001 Garden Plants in Singapore*. *2nd Edition.* National Parks Board, Singapore. 798 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. xxii + 861 pp + 236 pls. Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia.* http://www.asianplant.net/. (Accessed at 18 Aug.2010). Xia, N. & P. A. Gadek, 2007. Sapindaceae. *Flora of China*, **12**: 5–24. http://hua.huh.harvard.edu/china/mss/volume12/Sapindaceae.pdf. (Accessed at 19 Aug.2010).

Porterandia anisophylla (Jack ex Roxb.) Ridl.: a, leafy branches; b, leaf pairs are unequal, oppositely arranged, and at right angles to the subsequent pair; c, its white flower with five petals; d, stipule (arrowed) is found in between the leaf stalks; e, upper surface of a mature leaf; f, trunk bark. Scale bars = 10 cm (a), 5 cm (b, e, f) 2 cm (c, d). (Photographs by: Tan Siu Yueh [a, b, f] and www.NatureLoveYou.sg [c–e]).

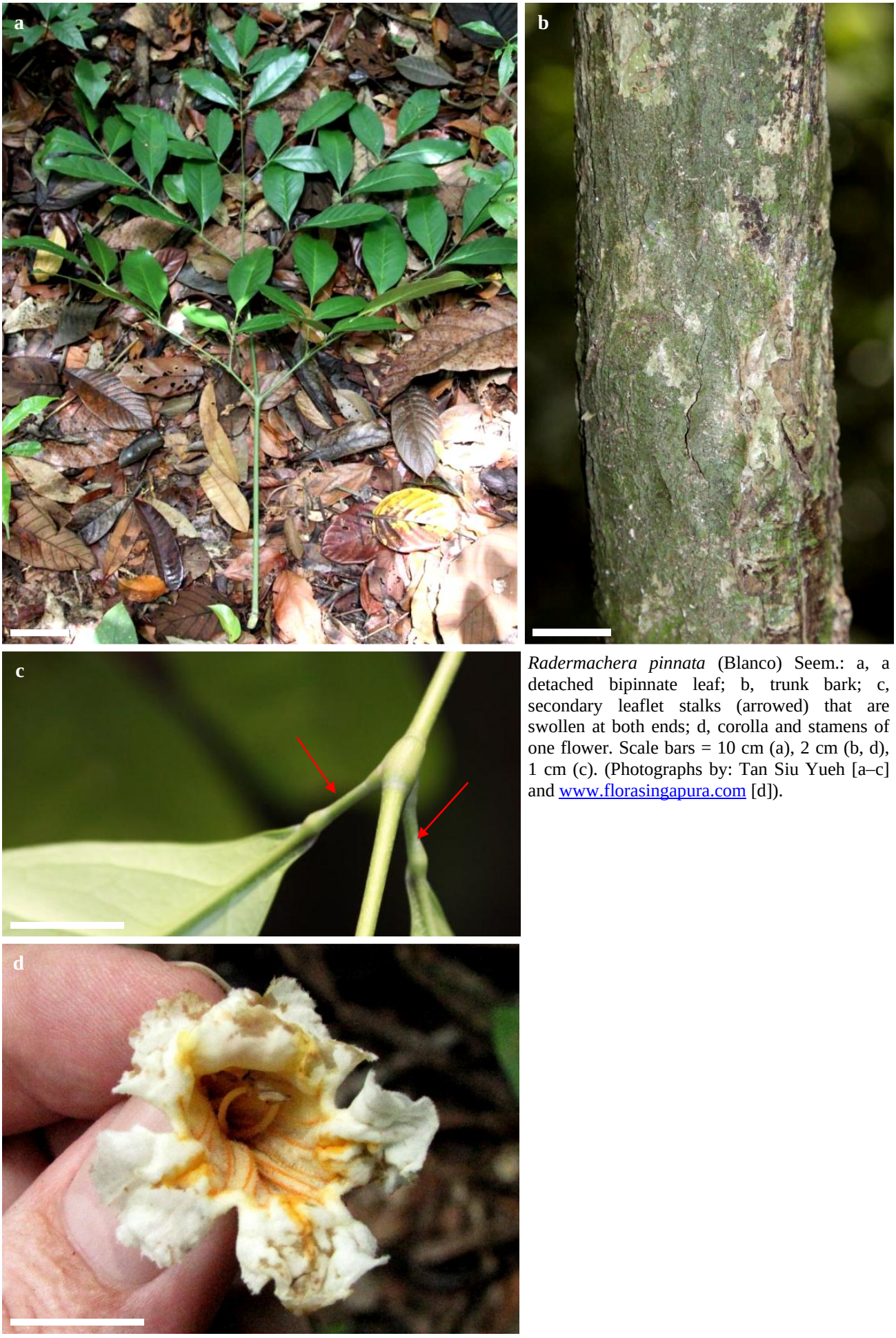
Scientific Name	*Porterandia anisophylla* (Jack ex Roxb.) Ridl.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Porterandia*, commemorating the early chief of the Penang Botanic Gardens, G. Porter; Latin *anisophyllus*, with unequal leaves, referring to the unequal leaves in each pair of opposite leaves in this species
Synonyms	*Gardenia anisophylla* Jack ex Roxb.; *Randia anisophylla* (Jack ex Roxb.) Hook.f.
Common Names	English: wild randia; Malay: bongkal, bungkal, empulur rimba, jarum-jarum rimba, kemenang, mempulur rimba, randa hutan, simpuh gajah, ulai-ulai
Scientific Family Name	Rubiaceae
Common Family Name	coffee family
Origin	Sumatra, Malaysia, Singapore, and Borneo
Growth Form	It is a small tree up to 18 m tall. The twigs, leaf-stalks, undersides of the leaf blades, and flowering clusters are velvety hairy.
Habitat	It grows at forest edges, in open country and thickets, from the lowlands to about 1,200 m in altitude. It can be found in the Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its opposite, stalked leaves have almost leathery leaf blades that are broadly drop-shaped, shortly tipped, 7.6–35 by 2.5–20 cm, and gradually tapered to the base. The stipules are broad, triangular and slightly joined at the sides.
Flowers	Its shortly-stalked flowering clusters are 3.8–6.4 cm wide. Each cluster bears few to many flowers, but only 1–4 of them bloom at a time. The white flowers are also up to 2.5 cm wide. Flowers are slightly pubescent.
Fruits	Its green fruits are broadly oblong, shortly velvety, up to 3.8 by 3.5 cm, and crowned by by the persistent calyx. The seeds are up to 5 mm long.
Uses and Folklore	It is cultivated as an ornamental tree. The timber is used in building houses and paper-making.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Philippines. 750 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Wong, K. M., 1989. Rubiaceae. *Tree Flora of Malaya*, **4**: 324−425.

Prunus polystachya Kalkman: a, alternate leaves; b, each leaf has a pair of glands (arrowed) at leaf blade base; c, close-up of the glands (arrowed); d, trunk bark; e, unripe fruit. Scale bars = 10 cm (a), 2 cm (b, c, e), 5 cm (d). (Photographs by: Tan Siu Yueh [a, b] and www.NatureLoveYou.sg [c–e]).

Scientific Name	*Prunus polystachya* Kalkman
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Prunus*, plum; Latin *polystachya*, many spikes, probably a reference to the flowering shoots
Synonym	–
Common Names	English: bat's laurel; Malay: cengah, merapit
Scientific Family Name	Rosaceae
Common Family Name	rose family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a deciduous tree with conical or round crown, up to 36 m tall. The occasionally buttressed tree trunk has grey to black or blackish brown bark.
Habitat	It grows in primary and secondary forests, up to 600 m in altitude. It is known locally from the Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Bukit Kallang, and Bukit Timah Nature Reserve.
National Conservation Status	Common
Foliage	Its alternatey arranged, stalked leaves have fleshy to leathery leaf blades that are elliptic to elliptic-egg-shaped, and 7–26 by 2.5–15 cm. A pair of glands is present at the base of each leaf blade. The glands are deeply hollow, raised and smell of almonds when crushed.
Flowers	Its flowering shoots are often branched and 3.5–11 cm long. Its hairy flowers have a rosy fragrance.
Fruits	Its drupes are round to slightly broader than long, and are 1.3–2.1 by 1.7–2.7 cm. Its seeds have hairless or hairy seed coats.
Uses and Folklore	–
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kalkman, C., 1993. Rosaceae. *Flora Malesiana*, Series I, **11**: 227−351. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Manila. 750 pp. Prance, G. T. & T. C. Whitmore, 1973. Rosaceae. *Tree Flora of Malaya*, **2**: 321−340. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

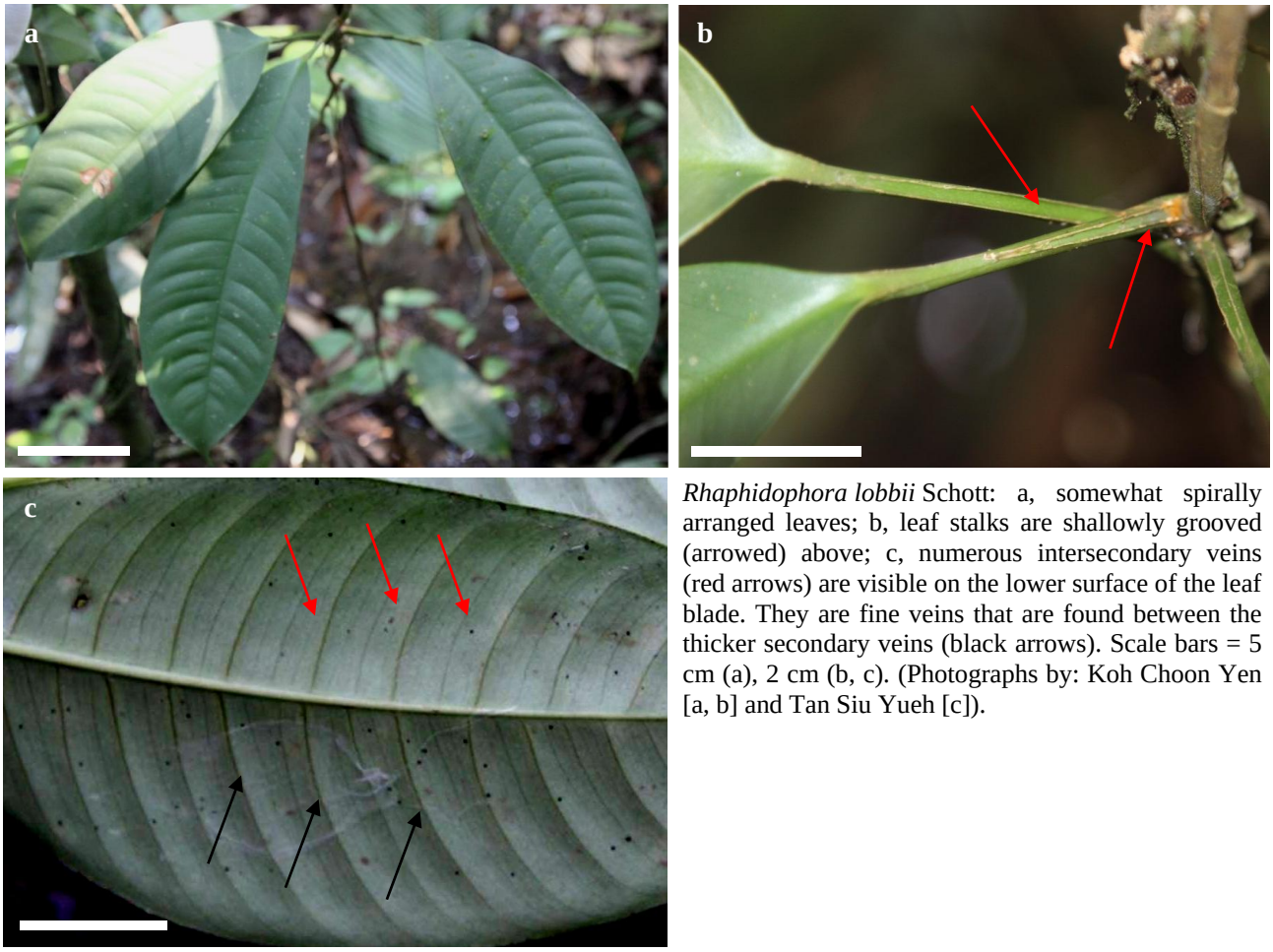
Pternandra echinata Jack: a, horizontal leafy branches; b, opposite leaves, with trinerved leaf blades; c, smooth trunk bark; d, leaf stalks with prominent nodal scars (arrowed).; e, the flowers have four petals which are tinted lilac; f, softly spiny, young, green fruit. Scale bars = 20 cm (a), 5 cm (b, c), 1 cm (d–f). (Photographs by: www.NatureLoveYou.sg [a, f] and Koh Choon Yen [b–e]).

Scientific Name	*Pternandra echinata* Jack
Main Group Key that Applies	Trees or Shrubs
Etymology	*Pternandra*, heel and stamen, a reference to the spur; Latin *echinata*, prickly, referring to the plant's, softly spiny calyx tube
Synonym	–
Common Names	English: cursed shade; Malay: kelat menahun, medang melukut, menahun, nahun, nanas burung, sangkak jantan, serai menahun, sial menahun, tapak kuda
Scientific Family Name	Melastomataceae
Common Family Name	sendudok family
Origin	Peninsular Thailand, Peninsular Malaysia, Singapore, Riau Archipelago, and Borneo
Growth Form	It is a somewhat hairy bushy tree with horizontal to drooping leafy twigs, and which grows up to 20 m tall.
Habitat	It grows in primary and secondary forests, open habitats, hedges, and from low country up to 1,200 m in altitude. It occurs locally in the Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Choa Chu Kang, and Pulau Tekong.
National Conservation Status	Vulnerable
Foliage	Its opposite, stalked leaves have rather leathery leaf blades that are lance- to egg-shaped and pointed tips. The trinerved leaf blades have minute hairs beneath and are 5.1–12.7 by 1.9–4.5 cm.
Flowers	Its flowers are either solitary or in cluster of 3–9 flowers, about 3 cm long each. The flower has four petals, which are whitish and tinted light blue or lilac.
Fruits	Its fruits grow in clusters that are 3–9 mm long, are dome-shaped, green, covered in soft spines, and 7–11 by 6–12 mm.
Uses and Folklore	It has horticultural potential as a park tree.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2*. *3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Maxwell, J. F., 1989. Melastomataceae. *Tree Flora of Malaya*, **4**: 179−198. Renner, S. S., G. Clausing, N. Cellinese & K. Meyer, 2001. Melastomataceae. *Flora of Thailand*, **7**: 412–497. Ridley, H. N., 1922. *The Flora of the Malay Peninsula*. *Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp.



Radermachera pinnata (Blanco) Seem.: a, a detached bipinnate leaf; b, trunk bark; c, secondary leaflet stalks (arrowed) that are swollen at both ends; d, corolla and stamens of one flower. Scale bars = 10 cm (a), 2 cm (b, d), 1 cm (c). (Photographs by: Tan Siu Yueh [a–c] and www.florasingapura.com [d]).

Scientific Name	*Radermachera pinnata* (Blanco) Seem.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Radermachera*, commemorates J. C. M. Radermache (1741–1783), a patron of science in the Netherlands Indies; Latin *pinnatus*, referring to the bipinnate leaves
Synonyms	*Bignonia banaibanai* (Bureau) Callery ex Burch.; *Millingtonia pinnata* Blanco; *Millingtonia quadripinnata* Blanco; *Radermachera acuminata* Merr.; *Radermachera banaibanai* Bureau; *Radermachera brachybotrys* Merr.; *Radermachera corymbosa* Steenis; *Radermachera elegans* Steenis; *Radermachera fenicis* Merr.; *Radermachera fenicis* Merr. var. *acuminata* Steenis; *Radermachera lobbii* (Teijsm. & Binn.) Miq.; *Radermachera lobbii* (Teijsm. & Binn.) Miq. subsp. *acuminata* Steenis; *Radermachera mindorensis* Merr.; *Radermachera pinnata* (Blanco) Seem. subsp. *acuminata* (Steenis) Steenis; *Radermachera pinnata* (Blanco) Seem. var. *glabra* (Seem.) Blanco; *Radermachera quadripinna* Seem.; *Radermachera sorsogonensis* Elmer ex Steenis; *Radermachera whitfordii* Merr.; *Spathodea lobbii* Teijsm. & Binn.; *Stereospermum banaibanai* (Bureau) Rolfe; *Stereospermum pinnatum* Fern.-Vill.; *Stereospermum quadripinnatum* (Blanco) Fern.-Vill.; *Stereospermum seemannii* Rolfe
Common Name	English: lowland fox-glove tree
Scientific Family Name	Bignoniaceae
Common Family Name	bigonia family
Origin	Sumatra, Peninsular Thailand, Peninsular Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a large tree up to 40 m tall.
Habitat	It grows in primary and secondary forests and especially near streams, from the lowlands up to an 800 m altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its opposite, stalked leaves are pinnate or bipinnate. Its stalked leaflets have leathery leaflet blades that are egg- to drop-shaped, upturned, and 7–15 by 2.5–6 cm. A cluster of tiny, dot-like, brown glands are found on either side of the leaflet blade base, and the tip.
Flowers	Its cream-white corolla-bearing flowers are mildly fragrant, with crisped edges. Corollas are pinkish-lilac outside, with five orange patches and fine, orange lines inside. The flowers are found in clusters at the ends of leafy twigs.
Fruits	Its pods are straight or twisted, 16–50 by 0.5–1 cm, and hanging in clusters at the end of branches. They split when ripe to release many, tiny, narrow, winged seeds that are up to 2.5 by 0.5 cm.
Uses and Folklore	It has horticultural potential as a park tree for its attractive flowers. The wood is used to make match-boxes and -sticks. The young leaves are edible but bitter.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van Steenis, C. G. G. J., 1977. Bignoniaceae. *Flora Malesiana*, Series I, **8**: 114−186.



Rhaphidophora lobbii Schott: a, somewhat spirally arranged leaves; b, leaf stalks are shallowly grooved (arrowed) above; c, numerous intersecondary veins (red arrows) are visible on the lower surface of the leaf blade. They are fine veins that are found between the thicker secondary veins (black arrows). Scale bars = 5 cm (a), 2 cm (b, c). (Photographs by: Koh Choon Yen [a, b] and Tan Siu Yueh [c]).

Scientific Name	*Rhaphidophora lobbii* Schott
Main Group Key that Applies	Climbers
Etymology	Greek *rhaphidos*, needle; Greek *phŏrŏs*, bearing, referring to the presence of needle-like crystals present in the cells; Latin *lobbii*, commemorates one or other of two Cornish brothers who collected for Messrs. Veitch, William Lobb (1809–1864) in America, and Thomas Lobb (1820–1894) in eastern Asia and Indonesia
Synonym	*Scindapsus lobbii* (Schott) Ender
Common Name	Malay: akar asam tebing paya
Scientific Family Name	Araceae
Common Family Name	cocoyam family
Origin	Sumatra, Southern Thailand, Peninsular Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a small to moderate, somewhat slender, herbaceous climber, up to 5 m long, which usually grows on soil. Its climbing stems have a rough texture and are often weakly rectangular to more or less round in cross section.
Habitat	It grows in lowland to hill dipterocarp, peat swamp, and freshwater swamp forests, on wet to inundated soils. It occurs locally in forests around Mandai Road area and Nee Soon Swamp Forest.
National Conservation Status	Vulnerable
Foliage	Its sheathed, alternate, stalked, somewhat spirally arranged leaves have leathery leaf blades that are green, narrowly egg-shaped to oval-lance-shaped to oblong or inverse lance-shaped, and 6–24 by 2–10 cm. Cystoliths can be observed on upper surface of leaf blades, especially in dried specimens using a microscope. Its intersecondary veins are very fine lines between the thicker secondary veins.
Flowers	Its erect, dull yellow to white inflorescence is 3–3.5 by 0.4–0.5 cm, enclosed within a dull green to yellowish petal-like, modified leaf (spathe) that is cigar-shaped with a long tip, 3–5 by 0.4–1 cm long. The inflorescence is borne singly.
Fruits	Its dark green infructescence is oblong-cylindrical and 2.5–4 by 1–1.2 cm.
Uses and Folklore	It has horticultural potential as an ornamental climber for semi-shaded sites. The leaves are said to be used as flavouring in curries.
References	Boyce, P. C., 1999. The genus *Rhaphidophora* Hassk. (Araceae-Monsteroideae-Monstereae) in Peninsular Malaysia and Singapore. *The Gardens' Bulletin, Singapore*, **51**: 183–256. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Rhodamnia cinerea Jack: a, greyish-brown trunk bark peeling off in vertical strips; b, opposite leaves with trinerved leaf blades; c, silvery undersides of the leaves; d, stalked inflorescences at the leaf axils; e, leafy branches; f, fruits ripening from red to shiny black; g, flowers. Scale bars = 5 cm (a, b), 2 cm (c, d), 10 cm (e), 1 cm (f, g). (Photographs by: Koh Choon Yen [a–c], www.NatureLoveYou.sg [d–f], and Hugh Tan Tiang Wah [g]).

Scientific Name	*Rhodamnia cinerea* Jack
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *rhodon*, red; Greek *amnion*, the amnion, referring to the unripe red fruits; Latin *cinereus*, grey, referring to the colour of the undersides of the leaf blade of this species
Synonyms	*Monoxora spectabilis* (Blume) Wight; *Myrtus globosa* Korth.; *Myrtus spectabilis* Blume; *Rhodamnia cinerea* Jack var. *concolor* (Miq.) Blume; *Rhodamnia cinerea* Jack var. *laxiflora* Blume; *Rhodamnia cinerea* Jack var. *macrophylla* Blume; *Rhodamnia concolor* Miq.; *Rhodamnia globosa* (Korth.) Blume; *Rhodamnia nageli* Miq.; *Rhodamnia spectabilis* (Blume) Blume; *Rhodamnia subtriflora* Blume; *Rhodamnia trinervia* Reinw. ex Blume var. *concolor* (Miq.) King; *Rhodamnia trinervia* Reinw. ex Blume var. *spectabilis* (Blume) King; *Rhodamnia trinervia* Reinw. ex Blume var. *spectabilis* (Blume) Duthie
Common Names	English: silver back; Malay: empoyan, mengkoyan, mempoyan, poyan, tempoyan
Scientific Family Name	Myrtaceae
Common Family Name	guava family
Origin	From Tanintharyi region to Australia (including Singapore)
Growth Form	It is a small evergreen tree up to 15 m tall, with a dense, rounded crown.
Habitat	It grows in secondary and primary forests in the lowlands. In Singapore, it is also found in adinandra (secondary forest on degraded soil). It occurs locally in Bukit Timah Nature Reserve, Central Catchment Nature Reserve (the Mandai Road area, Nee Soon Swamp Forest), Lazarus Island (Pulau Sakijang Pelepah), Pulau Ubin, Pulau Tekong, and other sites.
National Conservation Status	Common
Foliage	Its opposite, shortly-stalked leaves have leaf blades that are oblong, 5–15 by 1.8–7 cm, tapering at both ends, and sometimes bear longish tips. The leaf blades also have three distinct longitudinal veins, and grey undersides due to the presence of minute silky hairs. In some trees, the undersides of the leaf blades are green.
Flowers	Its flowers develop in stalked clusters of up to six together at each leaf axil. They are also very fragrant and about 1 cm wide, with four white petals and sepals.
Fruits	Its 3–8-seeded fruits are small, round, silky berries, and up to 1 cm wide. They are green turning red, then purple and finally shiny black. The top of the fruit is crowned by remnants of the sepals. Pale yellow, angular, hard seeds are also embedded in the fleshy fruit pulp.
Uses and Folklore	The plant is cultivated as a park tree for its leaves and flowers. The extremely hard wood is used in building Malay houses, as firewood and charcoal. The bark is used to produce a black dye. The leaves, roots, and fruits are used medicinally. The fruits can be eaten.
References	Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Tan, H. T. W. & T. Morgany, 2001. *A Guide to Growing the Native Plants of Singapore.* Singapore Science Centre, Singapore. 168 pp. Wee, Y. C., 2003. *Tropical Trees and Shrubs: A Selection for Urban Plantings.* Sun Tree Publishing Limited, USA. 393 pp.

Rourea mimosoides Planch.: a, spirally arranged pinnate leaves; b, leaf stalks (arrowed) are swollen at base; c, tendrils formed by the branch; d, single, detached, pinnate leaf. Scale bars = 5 cm (a), 1 cm (b, d), 2 cm (c). (Photographs by: Tan Siu Yueh [a, b], Koh Choon Yen [c], and Hugh Tan Tiang Wah [d]).

Scientific Name	*Rourea mimosoides* Planch.
Main Group Keys that Apply	Climbers, Trees or Shrubs
Etymology	*Rourea*, derived from Aroura in French Guiana; Greek *mimosoides*, *Mimosa*-like, referring to the appearance of the pinnate leaves of this species
Synonyms	*Cnestis mimosoides* (Vahl) Jack; *Connarus mimosoides* Vahl
Common Name	–
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Andaman and Nicobar Islands, Sumatra, Lower Myanmar, Cambodia, Thailand, Vietnam, Peninsular Malaysia, and Singapore
Growth Form	It is a large liana, up to 50 m tall. Rarely, it is a shrub with drooping branches or a tree. The twigs are often hairless or covered with minute, yellowish-grey hairs.
Habitat	It grows in beach vegetation, primary, secondary, bamboo and swamp forests, shrubbery, along riverbanks and roads, up to 750 m in altitude. It is known locally from Bukit Kallang, Changi, Chestnut Track, Kranji, MacRitchie Reservoir, Nee Soon Swamp Forest, Pulau Ubin, Seletar Track, Sungai Buloh, and Upper Peirce Reservoir.
National Conservation Status	Endangered
Foliage	Its spirally arranged, stalked, pinnate leaves have up to 25 pairs of leaflets and one terminal leaflet. Leaf stalks are basally swollen. The papery to leathery leaflet blades are egg-shaped or elliptic to oblong, and 0.5–3.5 by 0.5–1.5 cm. The terminal leaflet is sometimes drop-shaped. The leaflets have leaf blades that are shiny above and dull below. The apex of the leaflet blade is either rounded or notched.
Flowers	Its inflorescences are usually found at the leaf axils of the plants.
Fruits	Its fruits are follicles that are narrowly flattened round, about 0.5 cm wide.
Uses and Folklore	A decoction of roots is used for dysentery and leprosy. The stem is used to tie fences. The plant is used to treat colds in children and given to women after childbirth.

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Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp.

Goh, W. K. 1998. *The Connaraceae of Singapore.* Honours thesis, National University of Singapore.

Kochummen, K. M., 1978. Connaraceae. *Tree Flora of Malaya*, **3**: 47−52.

Leenhouts, P. W., 1950. Connaraceae. *Flora Malesiana*, Series I, **5**: 495−541.

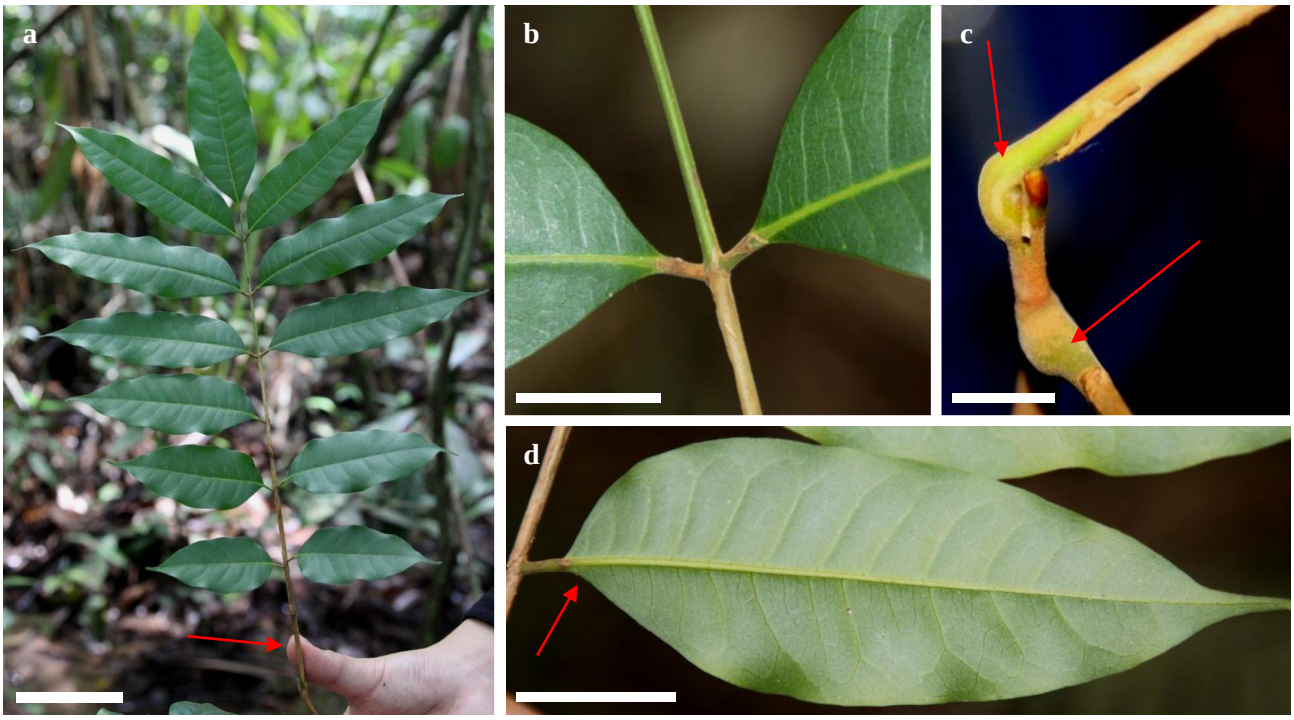
Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Rourea minor (Gaertn.) Alston.: a, spirally arranged pinnate leaves; b, two pinnate leaves; c, leaf stalks (arrowed) are basally swollen. Scale bars = 5 cm (a, b), 2 cm (c). (Photographs by: Li Tianjiao).

Scientific Name	*Rourea minor* (Gaertn.) Alston.
Main Group Keys that Apply	Climbers; Trees or Shrubs
Etymology	*Rourea*, derived from Aroura in French Guiana; Greek *minor*, smaller, probably referring to the leaflet size
Synonyms	*Aegiceras minus* Gaertn.; *Cnestis acuminata* Wall.; *Cnestis erecta* Blanco; *Cnestis florida* Jack; *Cnestis glabra* Blanco; *Cnestis monadelpha* Roxb.; *Connarus roxburghii* Hook. & Arn.; *Connarus santaloides* Vahl; *Rhizophora aegiceras* C.F.Gaertn.; *Rourea afzelii* R.Br. ex Planch.; *Rourea bamangensis* de Wild.; *Rourea bipindensis* Gilg ex G.Schellenb.; *Rourea erecta* Merr.; *Rourea gudjuana* Gilg; *Rourea millettii* Planch.; *Rourea minor* (Gaertn.) Leenh.; *Rourea platysepala* Baker; *Rourea santaloides* (Vahl) Wight & Arn.; *Rourea splendida* Gilg; *Santalodes hermannianum* Kuntze; *Santaloides afzelii* (R.Br. ex Planch.) G.Schellenb.; *Santaloides erectum* (Blanco) G.Schellenb.; *Santaloides floridum* (Jack) Kuntze; *Santaloides gossweileri* Exell & Mendonça; *Santaloides gudjuanum* (Gilg) G.Schellenb.; *Santaloides minus* (Gaertn.) G.Schellenb.; *Santaloides platysepalum* (Baker) G.Schellenb.; *Santaloides roxburghii* (Hook. & Arn.) Kuntze; *Santaloides splendidum* (Gilg) Schellenb. ex Engl.; *Santaloides urophyllum* G.Schellenb.
Common Name	–
Scientific Family Name	Connaraceae
Common Family Name	connarus family
Origin	Sri Lanka, Southwestern Deccan, Anadaman and Nicobar Islands, continental Southeast Asia from Bengal, Assam to Southern China, Hainan Island, Kotosyo Island, Malesia, Northeastern Queensland, New Caledonia, the New Herbrides, Fiji, and Samoa
Growth Form	It is usually a large liana, rarely a shrub or small tree. The twigs are hairless except the younger parts that are covered with soft wooly hairs.
Habitat	It grows in primary and secondary forests, bamboo and teak forests, forests edges, along riverbanks, swamps thickest, and rocky coast up to 1,800 m in altitude. It is known locally from Bukit Mandai, Bukit Timah, Changi, Chestnut Track, Kranji, MacRitchie Reservoir, Nee Soon Swamp Forest, Pulau Tekong, and Pulau Ubin.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked, pinnate leaves have up to nine pairs of leaflets and terminal leaflet is occasionally absent. Leaf stalks are basally swollen. The thinly papery to leathery leaflets are rather round or egg-shaped to lance-shaped, and 5.5–27 by 3.5–12.5 cm. The terminal leaflet is sometimes drop-shaped. Each leaflet blade usually has 4–11 pairs of leaf veins that are distinctly looped and joined near the margins.
Flowers	Its inflorescences are usually found at the upper leaf axils of the stems and branches.
Fruits	Its fruits are follicles, asymmetrical-flattened round to asymmetrical-egg-shaped, and 0.33–1 cm wide.
Uses and Folklore	The stem is used to make ropes. The roots and wood are medicinal.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Goh, M. W. K. & H. T. W. Tan, 2000. *The Angiosperm Flora of Singapore: Connaraceae.* Singapore University Press, The National University of Singapore and National Parks Board, Singapore. 32 pp. Kochummen, K. M., 1978. Connaraceae. *Tree Flora of Malaya*, **3**: 47−52. Leenhouts, P. W., 1950. Connaraceae. *Flora Malesiana*, Series I, **5**: 495−541.

Salacia maingayi M.A.Lawson: a, leafy branch; b, lower surface of the leaf blade. Scale bars = 2 cm (a), 1 cm (b). (Photographs by: Li Tianjiao).

Scientific Name	*Salacia maingayi* M.A.Lawson
Main Group Key that Applies	Climbers
Etymology	Latin *Salacia*, from Roman mythology, the wife of Neptune and goddess of the sea; Latin *maingayi*, commemorating A. C. Maingay (1836–1869), a botanist of the East India Company
Synonym	–
Common Name	–
Scientific Family Name	Celastraceae
Common Family Name	spindle-tree family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a woody climber.
Habitat	It grows in lowland forests, ravines, and sometimes on hilly rocks, up to 300 m in altitude. It occurs locally in Nee Soon Swamp Forest.
National Conservation Status	Extinct
Foliage	Its stalked leaves are in opposite pairs, with each pair at right angles to the next. Its slightly leathery leaf blades are usually elliptic-oblong, whitish green below, and 7–16.5 by 3.25–7 cm. The secondary veins are between 5–8 pairs in the leaf blade. The stipules are triangular.
Flowers	One or two, pale green, dull orange or sometimes greenish-yellow flowers grow in leaf axils. Its conical to cushion-like disk is 3 mm across. The petals are fleshy, oblong or elliptic.
Fruits	Its fruits are about 4 cm across. Each fruit contains several oblong seeds that are 3 by 2 cm and have triangular cross-sections.
Uses and Folklore	It has horticultural potential because of its attractive leaves.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Hou, D., 1962. Celastraceae-I. *Flora Malesiana*, Series I, **6**: 227−292. Patil, D. A., 2007. *Origins of Plant Names*. Daya Publishing House, New Delhi. viii + 287 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

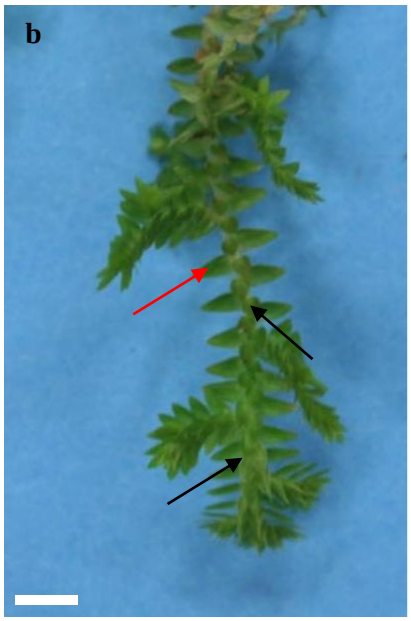


Santiria rubiginosa Blume: a, a pinnate leaf (leaf stalk arrowed and with 1 leaflet missing); b, leaflet stalks showing the opposite leaflets; c, leaf stalks (arrowed) are basally swollen; d, lower surface of a leaflet. Note that the leaflet blade base (arrowed) is assymmetrical. Scale bars = 5 cm (a), 2 cm (b, d), 1 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Santiria rubiginosa* Blume
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *Santiria*, after Santir, the Javanese guide of Dutch botanist Carl Ludwig Blume; Latin *rubiginosa*, rusty coloured, referring to the hairs at the twig tips
Synonyms	*Canarium planchonii* (Benn.) King; *Canarium rubiginosum* (Blume) Miq.
Common Name	–
Scientific Family Name	Burseraceae
Common Family Name	kedondong family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, and New Guinea
Growth Form	It is a medium-sized tree up to 30 m tall.
Habitat	It grows in primary forest, and sometimes swampy or temporary flooded ground, up to a 600-m altitude. It occurs locally in the Bukit Timah Nature Reserve, Mandai Forest, Nee Soon Swamp Forest, and along Seletar Track.
National Conservation Status	Vulnerable
Foliage	Its stalked leaves have 1–6 pairs of leaflets with slightly leathery leaf blades that are egg- to lance-shaped, and 3–15 by 1–7 cm. Its leaves are brown, and rarely greenish above when dried. Its midribs are raised above. The leaflets are smooth and sometimes hairy on the midrib.
Flowers	Its small flowers are greenish, 2–3 mm long, slightly hairy or smooth, and grow on flowering shoots that are 4–17 cm long.
Fruits	Its fruits are round or irregularly flattened-round, 10–14 by 8–10 mm, and ripen from yellow to red, and finally, black.
Uses and Folklore	It has horticultural potential as a park tree.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Kochummen, K. M., 1972. Burseraceae. *Tree Flora of Malaya*, **1**: 121−155. Kochummen, K. M., 1995. Burseraceae. *Tree Flora of Sabah and Sarawak*, **1**: 45−100. Leenhouts, P. W., C. Kalkman & H. J. Lam, 1951. Burseraceae. *Flora Malesiana*, Series I, **5**: 209−296. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Scaphium macropodum (Miq.) Beumée ex K.Heyne: a, spirally arranged leaves. The mid rib and secondary veins are prominent on the under surface; b, crown of a sapling; c, leaf stalks are long and swollen at both ends (arrowed) with the distal end kneed. Scale bars = 10 cm (a, c). (Photographs by: www.florasingapura.com).

Scientific Name	*Scaphium macropodum* (Miq.) Beumée ex K.Heyne
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek, *skaphĭon*, little boat, alluding to the shape of the winged fruit; Greek, *macro*, large; Greek, *podum*, foot, a reference to which is unknown
Synonyms	*Carpophyllum macropodum* Miq.; *Firmiana borneensis* Merr.; *Scaphium borneense* (Merr.) Kosterm.; *Sterculia macropoda* (Miq.) Hook. ex Kloppenb.
Common Names	English: malva nut; Malay: boh changi, kembang semangkuk, kepayang babi, selayar; Chinese: 胖大海 (pàng dà hăi)
Scientific Family Name	Malvaceae
Common Family Name	hibiscus family
Origin	Sumatra, Cambodia, Thailand, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a buttressed tree up to 45 m tall. At maturity, its red-brown trunk bark is deeply furrowed and flaking in oblong pieces. Its inner bark is fibrous with distinct net-like markings. Its twigs have prominent leaf scars.
Habitat	It grows in lowland and hill forests up to 1,200 m in altitude. It occurs locally in Bukit Timah Nature Reserve, MacRitchie Reservoir, Nee Soon Swamp Forest, and Pulau Ubin.
National Conservation Status	Endangered
Foliage	Its spirally arranged, stalked leaves possess leathery leaf blades that are somewhat broadly egg-shaped-oblong to egg-shaped-lance-shaped, and 15–25 by 1–12 cm. Its leaf stalks are distinctly swollen at both ends, with the distal end kneed. The leaf stalks are usually 3.5–15 cm long but up to 50 cm long in saplings. Its secondary veins are 6–11 pairs, with 1–2 pairs radiating outwards from leaf blade base. Leaf blade shape changes considerably from entire or 3-lobed at the seedling stage to 5- or 7-lobed when the trunk diameter at breast height (1.3 m above ground) is about 2 cm, and eventually to entire upon maturity.
Flowers	Its red-hairy flowering shoots are 15.2–17.8 cm long. Its greenish flowers are numerous and tiny.
Fruits	Its fruits are winged, hairless follicles about 20 cm long. Its seeds are ellipsoid and about 25 by 15 mm.
Uses and Folklore	Its seeds release a brownish gelatinous layer after soaking them in water overnight. The layer of edible gum has medicinal values and is often added to local desserts like cheng tng.
References	Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M., 1973. Sterculiaceae. *Tree Flora of Malaya*, **2**: 353−382. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Manilla. 750 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Selaginella ciliaris (Retz.) Spring: a, habit; b, upper surface of the plant, showing lateral leaves (red arrows) that are arranged on both sides a branch. The appressed, smaller median leaves (black arrows) are found between the lateral leaves and only visible from above. c, axillary leaves (white arrows) can be observed at each branch fork overlapping the branches slightly, on the lower surface. Scale bars = 2 cm (a), 0.5 cm (b, c). (Photographs by: Koh Choon Yen).

Scientific Name	*Selaginella ciliaris* (Retz.) Spring
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Latin *Selaginella*, suggests the close resemblance between plants of this genus and *Selago*, a moss-like plant. Greek *ciliaris*, from a Greek term *cilium*, referring to the lateral leaves that are fringed with fine hairs found in this species
Synonym	*Lycopodium ciliare* Retz.
Common Names	English: spikemoss; Chinese: 缘毛卷柏 (yuán máo juǎn bó)
Scientific Family Name	Selaginellaceae
Common Family Name	spikemoss family
Origin	India, Sri Lanka, China, Taiwan, Malesia to Australia and the Pacific Islands
Growth Form	It is a small-sized herb with a creeping and prostrate main stem, up to 10 cm long. The plant has 3 kinds of leaves—lateral leaves, median leaves, and axillary leaves. The presence of fine hairs (cilia) at the margins of the lateral leaves is useful in identifying this species.
Habitat	It grows in grass patches, often shaded by other taller plants or under full sun. It is known locally from Central Catchment Nature Reserve (including Nee Soon Swamp Forest), and many other sites.
National Conservation Status	Common
Foliage	Its thin lateral leaves that are spread out from the branches are egg-shaped-lance-shaped to oblong-sickle-shaped. Its sharp-tipped, median leaves, only seen on the upper surface of the lamina, are appressed along the spine of the branch. At each branch forking, a single egg-shaped, axillary leaf is seen, overlapping the branches slightly.
Strobili	Its cone-like strobili are positioned at the branch tips. These reproductive structures are of two kinds as the lower plane sporophylls (sporangium-bearing leaves) are smaller than the upper ones.
Uses and Folklore	–
References	Alston, A. H. G., 1934. The genus *Selaginella* in the Malay Peninsula. *The Gardens' Bulletin Singapore*, **8**: 41–62. Gledhill, D., 2008. *The Names of Plants. 4th Edition.* Cambridge University Press. 426 pp. Wong, K. M., 2010. Selaginellaceae. Series I: Ferns and Lycophytes. *Flora of Peninsular Malaysia*, **1**: 49–86. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Shorea parvifolia Dyer: a, lower surface of the leaf; b, lower surface of another leaf showing how variable the leaf shape is; c, the bark in adult tree is deeply fissured (arrowed); d, an adult tree of can be an emergent tree in forest. Scale bars = 5 cm (a, b), 10 cm (c). (Photographs by: www.florasingapura.com).

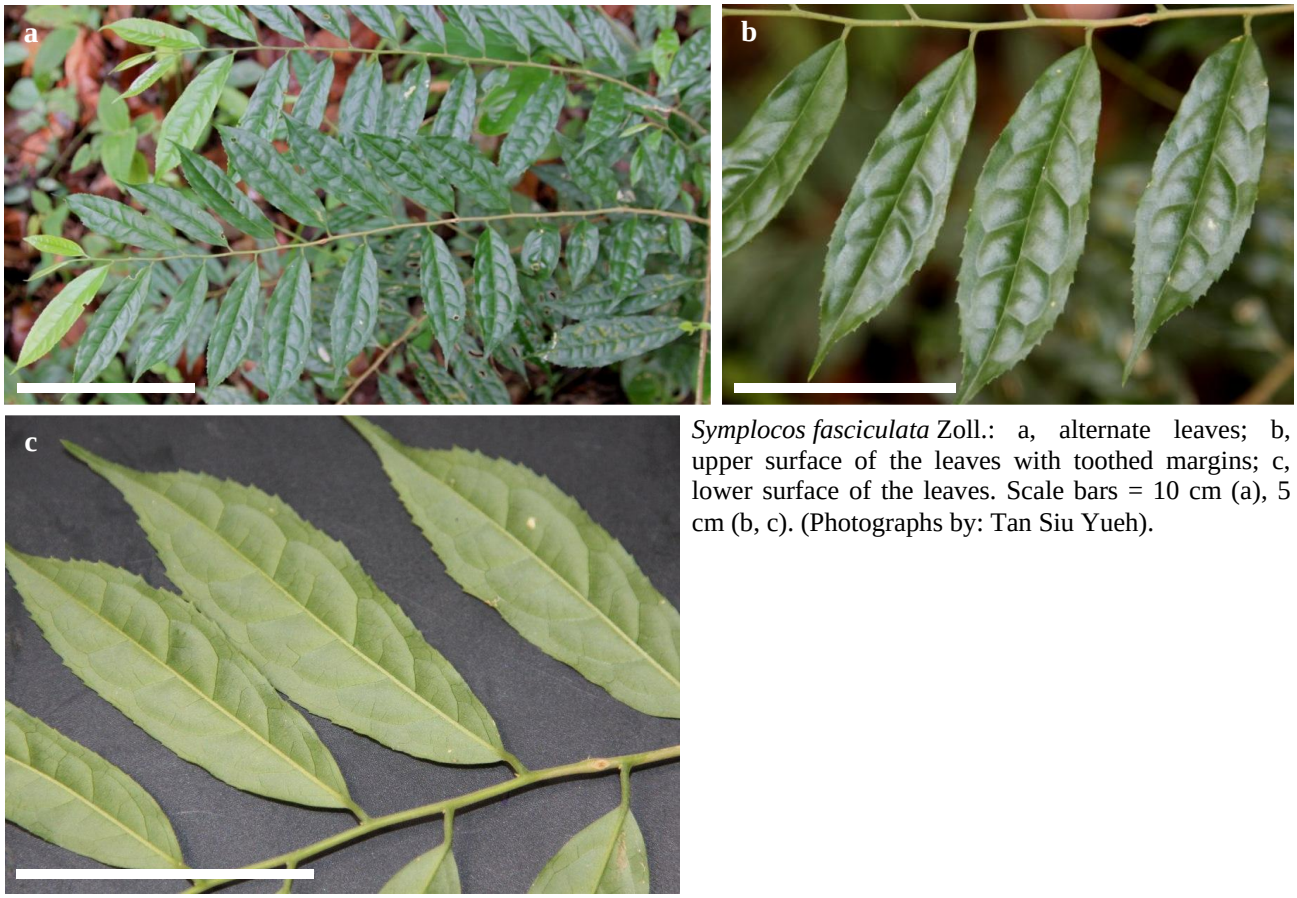
Scientific Name	*Shorea parvifolia* Dyer
Main Group Key that Applies	Trees or Shrubs
Etymology	*Shorea*, derived from Sir John Shore, Governor-General of India; Latin, *parvus*, small; Latin, *folius*, leaf, a reference to the leaf size of this species
Synonym	*Shorea scutulata* King
Common Names	Malay: meranti bunga, meranti daun kecil, meranti kelat, meranti ketapok, meranti kurap, meranti langgong, meranti sabut, meranti samak, meranti sarang punai, meranti tembaga, merawan kunyit, seraya labu, seraya punai, seraya samak
Scientific Family Name	Dipterocarpaceae
Common Family Name	meranti family
Origin	Thailand, Pulau Musala, Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a large, buttressed, emergent tree, up to 65 m tall. Its small-leafed crown is cauliflower-shaped. Its bark is smooth in young trees and later becomes shallowly or deeply fissured in adults. Its twigs are densely hairy and soon become hairless. The plant produces cream-coloured dammar gum.
Habitat	It commonly grows in lowland and hill forests up to 800 m in altitude. It is known locally from the Bukit Timah Nature Reserve and Central Catchment Nature Reserve (MacRitchie Reservoir, Nee Soon Swamp Forest, and Upper Seletar Reservoir).
National Conservation Status	Endangered
Foliage	Its alternate, stalked leaves possess thinly leathery leaf blades that are egg-shaped to egg-shaped-lance-shaped and 5–11 by 2.5–6 cm. Its secondary veins are between 10–13 pairs and slightly curved near leaf blade margins while the tertiary veins are distinctly ladder-like. Its stipules are triangular and semi-persistent. Occasionally, a pair or more of large pale scale-like domatia are found near the leaf blade base.
Flowers	Its inflorescences are terminal or axillary, 12 cm long and bear up to eight flowers. Its flowers are cream-coloured with a tinge of pink in the throat.
Fruits	Its winged fruits consist of three longer calyx lobes, up to 9 by 1.5 cm, and two shorter linear lobes, 3.5 by 0.2 cm. Its fruits are covered with short pale brown hairs.
Uses and Folklore	It is a source of resin and the wood is used for planking.
References	Ashton, P. S., 1982. Dipterocarpaceae. *Flora Malesiana*, Series I, **9**: 237−552. Ashton, P. S., 2004. Dipterocarpaceae. *Tree Flora of Sabah and Sarawak*, **5**: 63−388. Backer, C. A., 1936. *Verklarend Woordenboek.* Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Shorea platycarpa F.Heim: a, trunk and crown; b, the trunk bark is coarsely fissured; c, buttressed roots; d, the secondary veins are prominent on the lower surface of the leaf blades. Scale bars = 10 cm (b, c), 5 cm (d). (Photographs by: www.florasingapura.com).

Scientific Name	*Shorea platycarpa* F.Heim
Main Group Key that Applies	Trees or Shrubs
Etymology	*Shorea*, derived from Sir John Shore, Governor-General of India; Greek, *platy*, flat; Greek, *karpos*, referring to this species' fruit calyx
Synonym	*Shorea palustris* Ridl.
Common Names	Malay: meranti batu, meranti paya
Scientific Family Name	Dipterocarpaceae
Common Family Name	meranti family
Origin	Sumatra, Bangka Island, Billiton, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a buttressed tree, up to 40 m tall. The tree crown is large, dense, and dark greenish brown. Its dark to reddish brown bark is distinctly coarsely fissured. Its young twigs are densely brown-hairy. The plant produces yellow to almost colourless dammar.
Habitat	It grows in swamp and mixed peat swamp forests, often near the coast and on poorly drained podsols. It is known locally from Mandai and Nee Soon Swamp forests, and the Western Catchment Area.
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves possess leathery leaf blades that are elliptic-oblong or broadly egg-shaped and 9–17 by 5.5–10 cm. Its leaf blade midribs above and below of are covered with star-shaped hairs. The secondary veins are 16–20 pairs and curved near margins while the tertiary veins are distinctly ladder-like. Its stipules are hairy and drop off early. Young trees have scale-like domatia near the leaf blade midribs.
Flowers	Its densely brown-hairy inflorescences are terminal or axillary and up to 9 cm long. Its flowers are pale yellow with densely hairy petals.
Fruits	Its almost stalkless, winged fruits have unequal calyx lobes, with three longer lobes of about 6.5 by 1.2 cm and two shorter ones, up to 4 cm long.
Uses and Folklore	It is a source of timber.
References	Ashton, P. S., 1982. Dipterocarpaceae. *Flora Malesiana*, Series I, **9**: 237−552. Ashton, P. S., 2004. Dipterocarpaceae. *Tree Flora of Sabah and Sarawak*, **5**: 63−388. Backer, C. A., 1936. *Verklarend Woordenboek*. Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Ridley, H. N., 1922. *The Flora of the Malay Peninsula*. *Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Sterculia macrophylla Vent.: a, germinating seed; b, white-hairy seedling; c, spirally arranged leaves with heart-shaped leaf base; d, buttress roots; e, hairy seedlings and its crimson follicle. Scale bars = 2 cm (a), 4 cm (b), 10 cm (c, d), 5 cm (e). (Photographs by: www.florasingapura.com).

Scientific Name	*Sterculia macrophylla* Vent.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin, *sterculius*, derived from Latin god of fertilisation, Sterculius; Greek, *makros*, large; Greek, *phyllon*, leaf, a reference to the large leaves of this species
Synonyms	*Clompanus macrophylla* Kuntze; *Hildegardia macrophylla* Schott & Endl.
Common Names	English: broad-leafed sterculia; Malay: kelumpang, melian
Scientific Family Name	Malvaceae
Common Family Name	hibiscus family
Origin	Peninsular Malaysia, Singapore, Java, and Borneo
Growth Form	It is a buttressed tree up to 36 m tall with prominent pagoda crown form (branches in tiers). Its trunk has horizontal rings and the bark is grey-white to grey-brown. Its hairy twigs are about 2 cm thick and rather wrinkled, with closely spaced leaf scars.
Habitat	It grows in lowland forests, usually in swamp forest or near swampy streams, up to 450 m in altitude. It occurs locally in MacRitchie Reservoir and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, stalked leaves possess leathery leaf blades that are egg-shaped to drop-shaped-egg-shaped and 10–40 by 7.5–30 cm. The leaf blade base is rounded or heart-shaped. The leaf stalks are much elongated, often up to 15.2 cm. The lower surface of leaf blade is densely covered with soft hairs. Its secondary veins are 6–9 pairs, with several pairs radiating outwards from leaf blade base.
Flowers	Its flowering shoots are 15–20 cm long. Its flowers are minutely hairy.
Fruits	Its fruits are shortly stalked, woody follicles about 5.5 by 5 cm. The hairy follicles ripen from pink to crimson. Its purple-black seeds are oblong and about 20 mm long.
Uses and Folklore	It is a source of timber. In Java, the seeds of *Sterculia macrophylla* are sold for their assumed medicinal properties as substitute for those produced by *Sterculia javanica*.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Kochummen, K. M., 1973. Sterculiaceae. *Tree Flora of Malaya*, **2**: 353−382. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.



Symplocos fasciculata Zoll.: a, alternate leaves; b, upper surface of the leaves with toothed margins; c, lower surface of the leaves. Scale bars = 10 cm (a), 5 cm (b, c). (Photographs by: Tan Siu Yueh).

Scientific Name	*Symplocos fasciculata* Zoll.
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *symplŏkē*, inter-weaving, probably referring to the covering of fine hairs or scales on the parts of some species; Latin *fasciculatus*, bundled, referring to the flowering clusters
Synonym	–
Common Names	English: alum tree; Malay: lukut, jejoh, jirak, jirik, medang melukut, merpadi paya
Scientific Family Name	Symplocaceae
Common Family Name	alum-tree family
Origin	South Peninsular Thailand through Malaysia, Singapore, Indonesia, and Brunei to the Philippines
Growth Form	It is an evergreen tree up to 35 m tall, with zig-zag-like twigs. It also has a fine-leafed crown, and smooth, grey trunk bark.
Habitat	It grows in thickets, primary and secondary forests up to 1,700 m in altitude, on riverbanks, and swampy ground. It occurs locally in the vicinities of Chestnut Avenue cycling track, Lower and Upper Peirce reservoirs, Nee Soon Swamp Forest, and Pulau Ubin.
National Conservation Status	Vulnerable
Foliage	Its alternate to spirally arranged, shortly-stalked leaves have papery leaf blades that are usually elliptic, and 3.5–19 by 0.6–6 cm, with upcurled sides. Its leaf blades also have finely toothed margins and long tapering tips.
Flowers	Its stalked flowers are fragrant, white, 6.5 mm wide, and found on branched clusters. Several of these clusters are found in bundles up to 3.5 cm long in the leaf axils. Petals are smooth or slightly hairy on the outer base.
Fruits	Its 1-seeded fruits are flask-shaped, ripen from blue to black, and up to 8 by 5 mm. These fruits are also found in clusters up to 1.8 cm long in the leaf axils. Slight depressions might be present or absent on the fruits. Its seeds are lobed.
Uses and Folklore	It has horticultural potential as a park tree. The bark is used medicinally and to dye rattans. The trunks are too small to exploit as commercial timber, so its wood is used for making ornaments instead.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Nooteboom, H. P., 1977. Symplocaceae. *Flora Malesiana*, Series I, **8**: 205−274. Pearce, K. G., 2004. Symplocaceae. *Tree Flora of Sabah and Sarawak*, **5**: 389−432. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Syzygium papillosum (Duthie) Merr. & L.M.Perry: a, stem of a tree, showing the buttress roots; b, inflorescences at the tip of a leafy branch; c, the plant develops stilt roots on swampy ground; d, knee-like roots is another field characteristic of the species in wet ground; e, papery and flaky bark; f, fruit; g, its secondary veins form intramarginal veins which are prominent on the lower surface of the leaf blade. Scale bars = 10 cm (a, d), 5 cm (b, c, g), 1 cm (f). (Photographs by: www.florasingapura.com).

Scientific Name	*Syzygium papillosum* (Duthie) Merr. & L.M.Perry
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek, *syzygos*, joined, alluding to the opposite leaves; Latin, *papillosum*, soft protuberances on a surface, the reference to which is unknown
Synonyms	*Eugenia papillosa* Duthie; *Eugenia nigricans* King
Common Names	English: marsh kelat; Malay: gelam, gelam tikus, kelat paya, kelat jangkang, samak bukit
Scientific Family Name	Myrtaceae
Common Family Name	guava family
Origin	Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 21 m tall. Its orange, papery, flaky trunk bark makes it the most conspicuous tree species at swamp forest edge. Its brown twigs are sometimes hairy. It usually grows with strong, arched and flattened prop or stilt roots from the lower trunk.
Habitat	It grows in lowland forests and often in freshwater swamps. It is known locally from Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its opposite and more or less stalkless leaves possess leathery leaf blades that are oblong-egg-shaped, elliptic-oblong or oblong-lance-shaped, and 12.7–38.1 by 8.9–17.8 cm. Its leaf blade base is heart-shaped. Its strongly ribbed secondary veins are up to 20 pairs, which unite near leaf blade margins to form an intramarginal vein.
Flowers	Its flower clusters develops at the branch tip and are about 10–20 cm long. Its white flowers are about 2–2.5 cm wide.
Fruits	Its round, green fruits are about 2.5 cm wide.
Uses and Folklore	It is a source of timber.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Kochummen, K. M., 1978. Myrtaceae. *Tree Flora of Malaya*, **3**: 169−254. Ridley, H. N., 1922. *The Flora of the Malay Peninsula. Volume 1*. L. Reeve & Co., Ltd., London. xxxv + 918 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Taenitis blechnoides (Willd.) Sw.: a, plant; b, single pinnate leaf with leaf stalk arrowed; c, unrolling fiddlehead of the fern; d, lower surface of a fertile leaflet, showing two linear bands of sori between the midrib and leaflet blade margins. Scale bars = 10 cm (a), 5 cm (b), 1 cm (c, d). (Photographs by: www.NatureLoveYou.sg).

Scientific Name	*Taenitis blechnoides* (Willd.) Sw.
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Taenitis*, ribbon-like, a reference to the leaflet blade shape; Greek *blechnoides*, similar to species of *Blechnum*, another fern genus
Synonym	*Pteris blechnoides* Willd.
Common Names	Malay: paku pijai, paku balu
Scientific Family Name	Adiantaceae
Common Family Name	maiden's hair fern family
Origin	Tropical Asia (including Singapore) to Fiji
Growth Form	It is medium-sized terrestrial herb, up to 0.6 m tall. It is a dimorphous fern whereby the spore-bearing fertile leaves are taller and have narrower leaflets than the sterile leaves. Its horizontal stem (rhizome) is 0.4–0.5 cm across and densely covered with bristle-like scales.
Habitat	It grows in light shady lowland and mid-mountain forests, forest edge, and in rubber plantations. It is known locally from Bukit Timah Nature Reserve, Central Catchment Nature Reserve (including Nee Soon Swamp Forest), Lazarus Island, Pulau Pawai, Pulau Tekong, Pulau Ubin, and the Western Catchment Area.
National Conservation Status	Common
Foliage	Its leaves are pinnate and have rather leathery leaflet blades. Each leaf has one terminal leaflet and up to 10 pairs of alternate lateral leaflets. The lance-shaped leaflets have slightly wavy leaf margin and are 15–25 by 2.5–5 cm (sterile) or 1–3 cm (fertile).
Sori	Two linear bands of sporangia are formed in between leaf margin and midrib, one band on each side.
Uses and Folklore	A decoction of the fern is given as a protective medicine after childbirth.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Lindsay, S. & D. J. Middleton, 2012 onwards. *Ferns of Thailand, Laos and Cambodia.* http://rbg-web2.rbge.org.uk/thaiferns/factsheets/index.php?q=Taenitis_blechnoides.xml. (Accessed 29 Jul. 2013). Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp.

Teratophyllum ludens (Fée) Holttum: a, young plant; b, pinnate leaf with alternate leaflets; c, upper surface of leaflets; d, lower surface of leaflets showing the parallel veins of the leaflet blades. Scale bars = 2 cm (a, c, d), 5 cm (b). (Photographs by: Tan Siu Yueh).

Scientific Name	*Teratophyllum ludens* (Fée) Holttum
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *Teratophyllum*, prodigious-leaf; Latin *ludens*, of games and sports, the reference to which is unknown
Synonym	*Lomaria ludens* Fée
Common Name	–
Scientific Family Name	Lomariopsidaceae
Common Family Name	lomariopsis family
Origin	Myanmar, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a creeping and high-climbing fern with upper and lower leaves that are distinctly different morphologically.
Habitat	It grows in freshwater swamp forest. It is known locally from Bukit Kallang, Bukit Timah, Mandai Road, and Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its leaves are stalked, pinnate and have rather leathery leaflet blades. The lower leaves that are found near ground or on the lower tree trunks have 2–9 egg-shaped leaflets, each up to 10 by 2 cm. Its upper leaves, formed higher up near the tree crown, are about 45 by 25 cm and have about 10 pairs of leaflets. The upper leaflets are elliptic and 7–12 by 2–4.5 cm. Fertile leaves have much reduced, narrow, fleshly leaflets that are up to 20 by 0.3 cm.
Sori	Its sori (clusters of sporangia) are borne on the thread-like fertile leaflets of the fertile leaves which are hardly observed as it is produced seasonally, usually after a dry season and often located high in the canopy.
Uses and Folklore	–
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Holttum, R. E., 1978. Lomariopsis Group. *Flora Malesiana*, Series II, **1**: 255−330. Lindsay, S. & D. J. Middleton, 2012 onwards. *Ferns of Thailand, Laos and Cambodia* http://rbg-web2.rbge.org.uk/thaiferns/factsheets/index.php?q=Teratophyllum_ludens.xml. (Accessed 29 Jul. 2013). Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp.

Tetrastigma leucostaphylum (Dennst.) Balakrishnan: a, palmate leaves with three leaflets. The leaf stalk is arrowed. b, palmate leaf with four leaflets. The leaf stalk is arrowed. c, upper surface of the leaf and the leaflet blade margins are toothed; d, whitish lower surface of leaflets. Scale bars = 5 cm (a–d). (Photographs by: Koh Choon Yen).

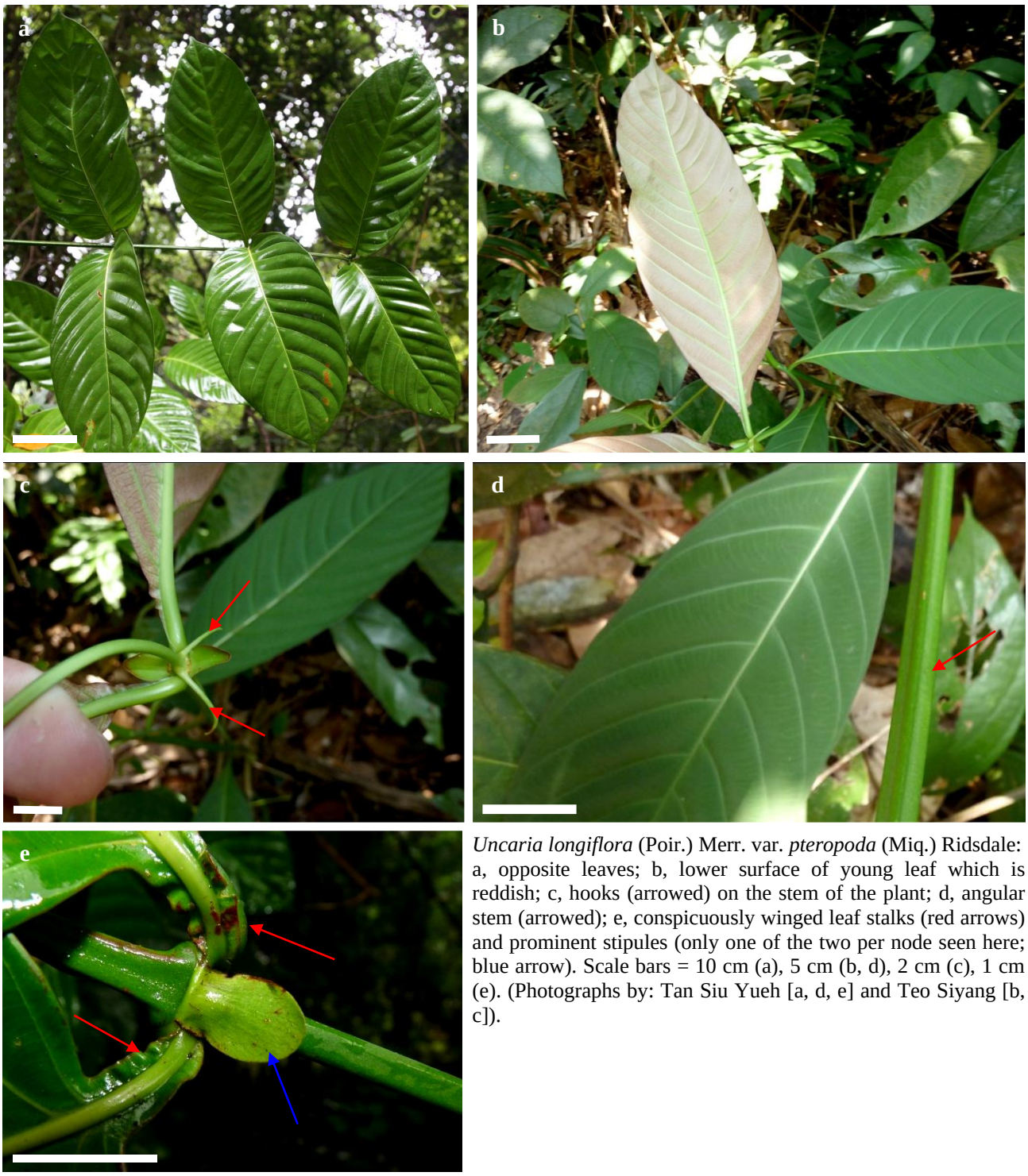
Scientific Name	*Tetrastigma leucostaphylum* (Dennst.) Balakrishnan
Main Group Key that Applies	Climbers
Etymology	Greek *tetra*, four; Latin *stigma*, stigma, referring to the four-lobed stigma; Greek *leukos*, white; Greek *staphyle*, a bunch of grapes, referring to the white flower clusters
Synonyms	*Cissus leucostaphyla* Dennst.; *Tetrastigma leucostaphylum* (Dennst.) Alston; *Vitis leucostaphylum* (Dennst.) B.D.Jacks.
Common Names	Malay: akar panpan, akar chabang lima, kang kong gajah
Scientific Family Name	Vitaceae
Common Family Name	grapevine family
Origin	Bangladesh, Bhutan, India, Nepal, Sri Lanka, Myanmar, Laos, Vietnam, Thailand, Cambodia, Malay Peninsula, Singapore, and Java
Growth Form	It is a woody climber with leaf-opposed tendrils.
Habitat	It grows on the fringes of lowland dipterocarp forests and can be found locally in the Nee Soon Swamp Forest.
National Conservation Status	Critically endangered
Foliage	Its spirally arranged, palmate leaves are 3-foliolate to 5–7-foliolate. The terminal leaflet blade is lance-shaped, 13.5–20.5 cm by 4–9.5 cm, with slightly toothed margins and a pointed base. The lateral leaflet blades are lance-shaped, 6–13.5 cm by 2.5–6.5 cm, with a rounded base. Its leaflet blades are hairless and leathery.
Flowers	Its flowers are unisexual and the flowering shoot stalk is 5–20 mm long. Male flowers are about 2 mm long and egg-shaped, while female flowers are about 5 mm long and oblong. The flowers are characterised by their 4-lobed stigmas.
Fruits	Its berries are round, 15–20 mm across, 1–2-seeded. The seeds are oblong and about 12 mm by 6 mm. The seeds are slightly wrinkled.
Uses and Folklore	Poultices are made from the leaves is used for treating boils and ague.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants. 4th Edition.* Cambridge University Press. 426 pp Latiff, A. 1983. Studies in Malesian Vitaceae, 7. The genus *Tetrastigma* in the Malay Peninsula. *The Gardens' Bulletin, Singapore*, **36**: 213–228. Yeo, C. K. 2001. *The Vitaceae and Leeaceae of Singapore.* Honours Thesis, National University of Singapore. 96 pp.

Timonius wallichianus (Korth.) Valeton: a, flowering leafy branches; b, opposite leaves. Each leaf pair is at right angle to the subsequent leaf pairs. c, the lower surface of the leaf blade is densely covered by silvery, flattened hairs; d, reddish young leaves; e, female flowers; f, fruits of various ages. A stipule is arrowed. Scale bars = 10 cm (a, b), 5 cm (c–f). (Photographs by: www.NatureLoveYou.sg [a, e, f] and Holly Joy Siow May-Ping [b–d]).

Scientific Name	*Timonius wallichianus* (Korth.) Valeton
Main Group Key that Applies	Trees or Shrubs
Etymology	*Timonius* from a Malayan vernacular name; Latin *wallichii*, commemorates Nathaniel Wallich (1786–1854), originally Nathan Wolff, a Danish botanist and author, Curator of the Calcutta Botanic Garden
Synonyms	*Bobea wallichiana* Korth.; *Gardenia trichoclada* Miq.; *Timonius rumphii* DC.
Common Name	Malay: menkong
Scientific Family Name	Rubiaceae
Common Family Name	coffee family
Origin	Southern Malaysia, Singapore
Growth Form	It is a small tree up to 10 m tall.
Habitat	It grows in lowland and secondary forests. It is known locally from Bukit Timah, Changi and Nee Soon Swamp Forest.
National Conservation Status	Common
Foliage	Its stalked, opposite leaves have leaf blades that are lance-shaped, 9 by 4.5 cm, and tapered at both ends. The leave blades are smooth on the upper surface and covered with dense silvery, flattened hairs beneath. The veins are prominent below.
Flowers	Its male flowers are 1.5 by 3 cm and fully covered with silvery hairs except the inner parts. Female flowers are inflorescences of 3 cm long with 4 or 5 larger flowers.
Fruits	Its egg-shaped fruits are about 1 cm long and covered with short, soft hairs.
Uses and Folklore	The wood is sometimes used to build house posts.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Ridley, H. N., 1923. *The Flora of the Malay Peninsula. Volume 2.* L. Reeve & Co., Ltd, London. vi + 672 pp. Wong, K. M., 1989. Rubiaceae. *Tree Flora of Malaya*, **4**: 324−425.

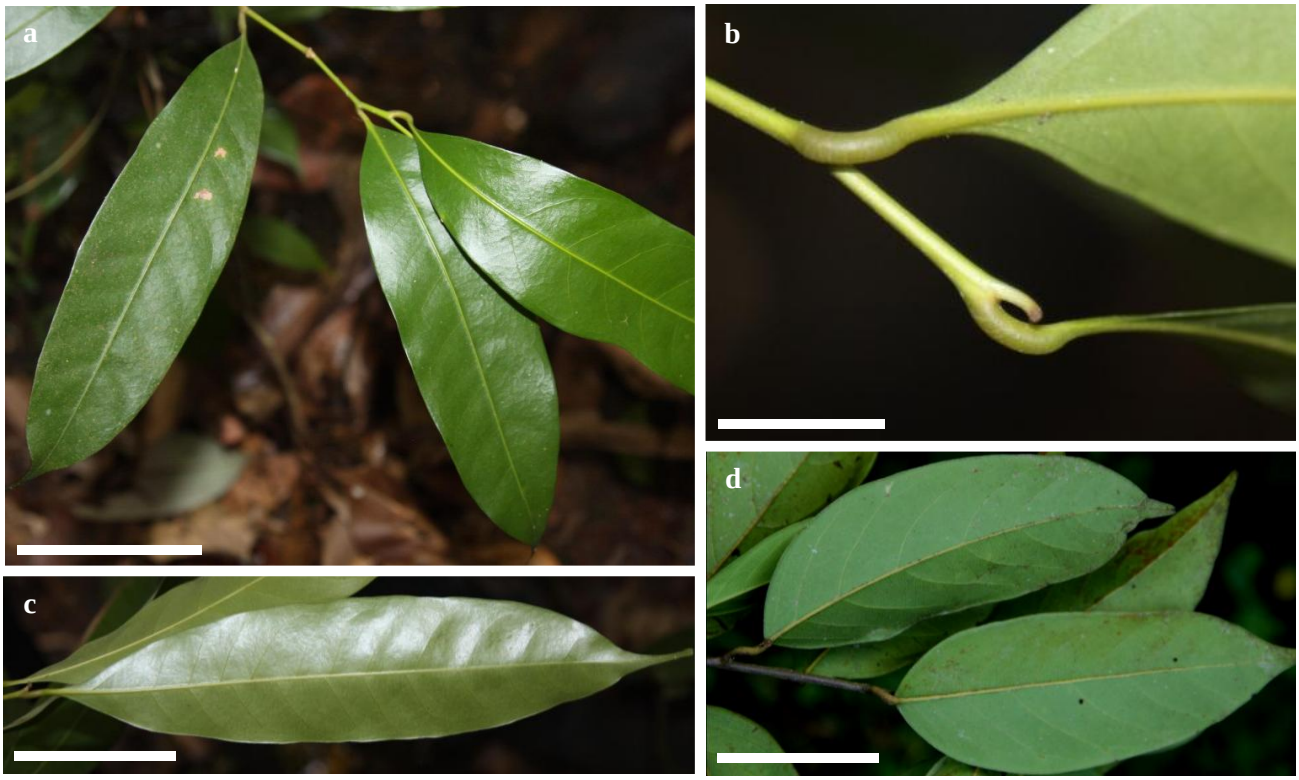
Trichiogramme alismifolia (C.Presl) Kuhn: a, habit; b, lower surface of a fertile leaf with sori that are arranged along the veins of the leaf blade; c, close-up of leaf upper surface showing the linear veins that connect with each other near margins. Scale bars = 10 cm (a), 5 cm (b), 2 cm (c). (Photographs by: Koh Choon Yen).

Scientific Name	*Trichiogramme alismifolia* (C.Presl) Kuhn
Main Group Key that Applies	Ferns and Lycophytes
Etymology	Greek *trichos*, hair; Greek gramme, lines, probably referring to fine hairs present along leaf veins; Latin *alismifolia* having leaves resembling those of *Alisma* species (water plantains)
Synonyms	*Diplazium alismifolium* Pr.; *Gymnogramme wallichii* Hk.; *Syngramma alismifolia* (C.Presl) J.Sm.
Common Name	–
Scientific Family Name	Adiantaceae
Common Family Name	maiden's hair fern family
Origin	Malesia, north to South Indochina
Growth Form	It is a small to medium-sized terrestrial fern, up to 80 cm tall. Its short-creeping rhizome is densely bristly at its tip and bears closely arranged simple, erect leaves.
Habitat	It grows in wet areas in primary forest, on rocks by streams or in freshwater swamp forest. It is known locally from Bukit Timah Nature Reserve and Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its stalked, simple leaves have rather leathery leaf blades that are up to 30 cm long and 6–12 cm wide. Leaf veins are simple or once forked, uniting only near leaf blade margins to form 1 or 2 series of submarginal areoles (a small area of lamina enclosed by veins).
Sori	Its much-elongated, exindusiate (not protected by a membrane) sori (clusters of sporangia) are found along the leaf blade veins. The sporangia form near the midrib to where the veins start to unite. Sterile hairs with many, red, enlarged apical cells are usually present among the sporangia.
Uses and Folklore	–
References	Gledhill, D., 2008. *The Names of Plants*. *4th Edition.* Cambridge University Press. 426 pp. Holttum, R. E., 1966. *A Revised Flora of Malaya. Volume II. Ferns of Malaya. 2nd Edition*. Government Printing Office, Singapore. 653 pp. Lindsay, S. & D. J. Middleton, 2012 onwards. *Ferns of Thailand, Laos and Cambodia.* http://rbg-web2.rbge.org.uk/thaiferns/factsheets/index.php?q=Syngramma_alismifolia.xml. (Accessed 29 Jul. 2013). Piggott, A. G., 1988. *Ferns of Malaysia in Colour*. Tropical Press Sdn. Bhd., Kuala Lumpur, Malaysia. 458 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Turner, I. M. & Chua, K. S., 2011. *Checklist of The Vascular Plant Species of Bukit Timah Nature Reserve*. Raffles Museum of Biodiversity Research, National University of Singapore, Singapore. 85 pp.



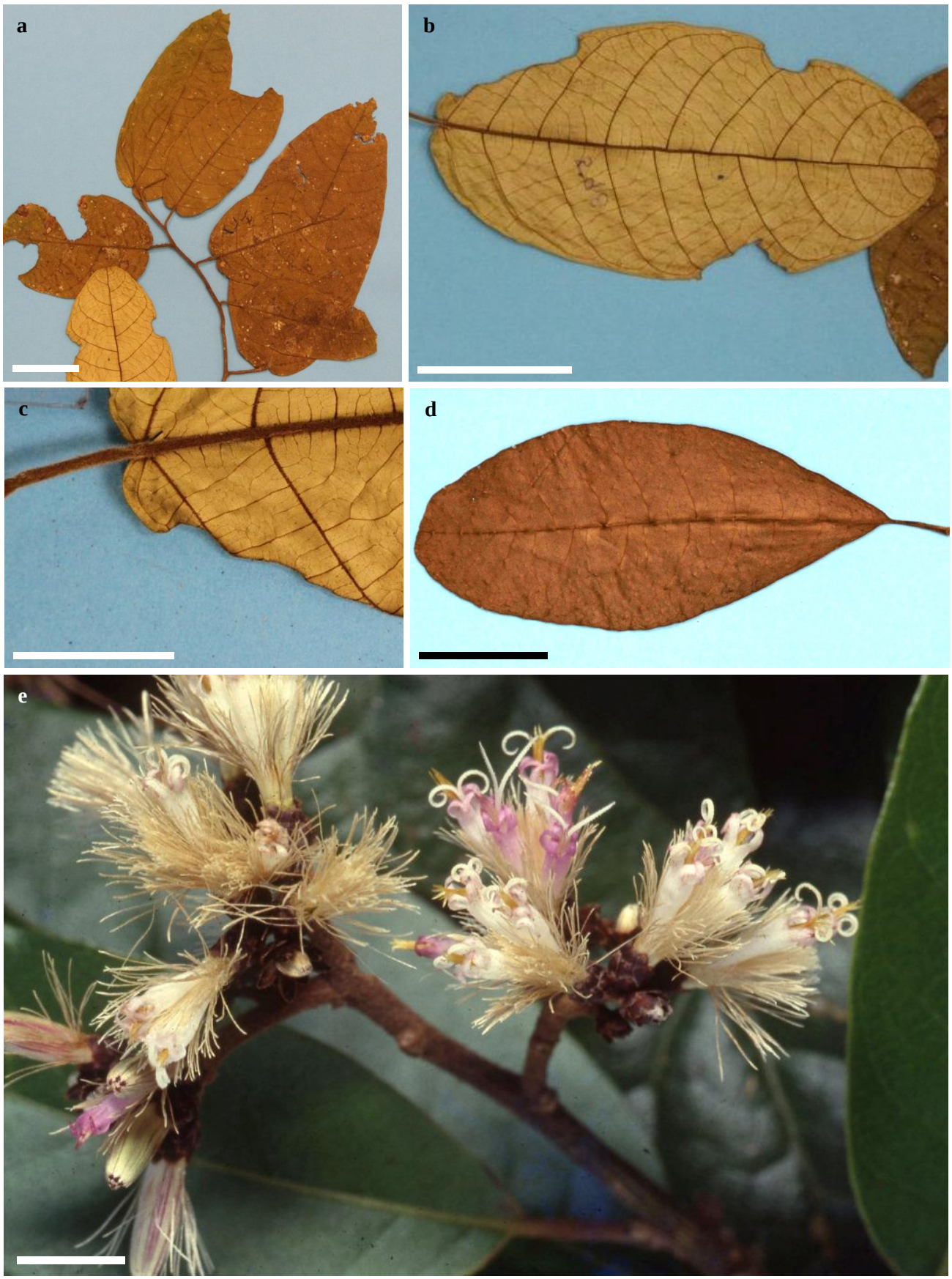
Uncaria longiflora (Poir.) Merr. var. *pteropoda* (Miq.) Ridsdale: a, opposite leaves; b, lower surface of young leaf which is reddish; c, hooks (arrowed) on the stem of the plant; d, angular stem (arrowed); e, conspicuously winged leaf stalks (red arrows) and prominent stipules (only one of the two per node seen here; blue arrow). Scale bars = 10 cm (a), 5 cm (b, d), 2 cm (c), 1 cm (e). (Photographs by: Tan Siu Yueh [a, d, e] and Teo Siyang [b, c]).

Scientific Name	*Uncaria longiflora* (Poir.) Merr. var. *pteropoda* (Miq.) Ridsdale
Main Group Key that Applies	Climbers
Etymology	Latin *uncaria*, hook, referring to the hooks present on the stem of plants in this genus; Latin *longi-*, elongated, Latin *flora*, flowered, referring to its elongated corolla tubes; Greek *ptĕron*, winged; Greek *pous* (*pŏdos*), a foot, a reference to which is unknown
Synonyms	*Uncaria laevifolia* Elmer; *Uncaria pteropoda* Miq.; *Uruparia pteropoda* (Miq.) Kuntze
Common Names	English: river-bank grapple plant; Malay: kait-kait darat, kait besi
Scientific Family Name	Rubiaceae
Common Family Name	coffee family
Origin	Malay Peninsula, Sumatra, Borneo, and the Philippines
Growth Form	It is a hooked woody climber with stems that are square in cross section. The hooks occur both in pairs and singly on the lower surface of the branches.
Habitat	
National Conservation Status	Critically endangered
Foliage	Its opposite leaves have leathery, egg-shaped, leaf blades which are 12–16 cm long. Its leaf stalks are conspicuously winged. The stipules are interpetiolar and prominent.
Flowers	Its flowers grow in compact clusters 2–2.5 cm wide.
Fruits	Its fruits are 2-celled, with thick skins which split when mature, and produce many small seeds with long wings on both ends.
Uses and Folklore	Its leaves can be rubbed on the body to relieve pain and rheumatism. Its leaves can also be used as an alternative for betel-nut.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Gledhill, D., 2008. *The Names of Plants. 4th Edition.* Cambridge University Press. 426 pp. Keng, H., 1990. *The Concise Flora of Singapore: Gymnosperms and Dicotyledons*. Singapore University Press, Singapore. 222 pp. Risdale, C. E., 1978. A revision of *Mitragyna* and *Uncaria* (Rubiaceae). *Blumea,* **24**: 43–100.



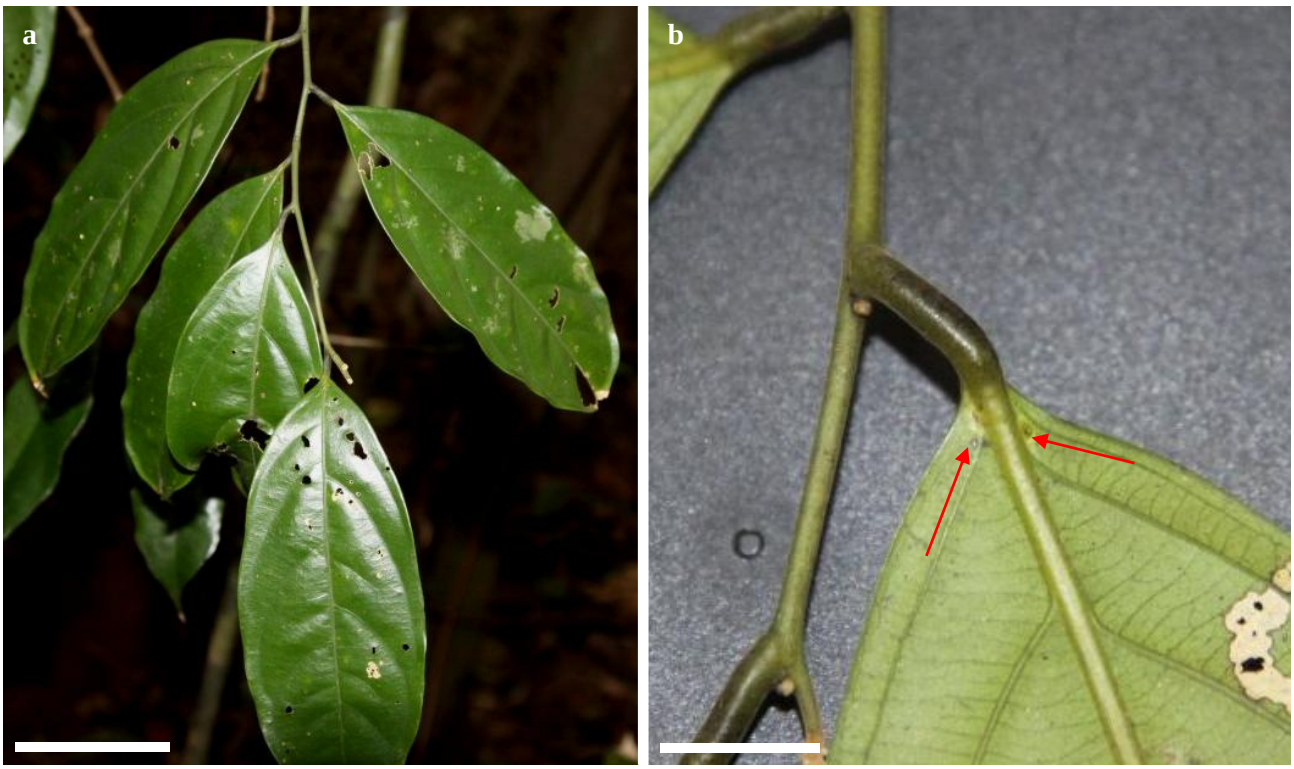
Vatica pauciflora Blume: a, alternate leaves; b, leaf stalks; c, smooth and hairless upper surface of the leaf; d, lower surface of the leaves. Scale bars = 5 cm (a, c, d), 1 cm (b). (Photographs by: Koh Choon Yen [a–c] and Teo Siyang [d]).

Scientific Name	*Vatica pauciflora* Blume
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Vatica*, a prophet, referring to the use of the plant's resin for incense; Latin *pauci*, small; Latin *flora*, flowers, a reference to the flower size of this species
Synonym	*Vateria pauciflora* Walp.
Common Names	Malay: damar mata kuching, resak air, resak ayer, resak laru, resak pasir, resak paya
Scientific Family Name	Dipterocarpaceae
Common Family Name	meranti family
Origin	Sumatra, Bangka Island, Southern Vietnam, Cambodia, Peninsular Thailand, Peninsular Malaysia, and Singapore
Growth Form	It is a small- to medium-sized tree, with short buttress roots. It has smooth, greyish, trunk bark. Its trunk produces yellowish resin when damaged.
Habitat	It is found on the banks of sluggish rivers and in freshwater swamp forests. It occurs locally in the Central Catchment Nature Reserve (including Nee Soon Swamp Forest).
National Conservation Status	Critically endangered
Foliage	Its alternate, stalked leaves have thin, leathery leaf blades that are egg-shaped or lance-shaped, and about 6.5–20 by 2.2–8 cm.
Flowers	Its 9 cm-long flowering shoots are irregularly branched and have numerous, creamy white but basally red flowers. The spindle-shaped flower buds are 10 by 2 mm.
Fruits	Its wingless fruits are nuts that are egg-shaped, and 3 by 3 cm, with three distinct vertical grooves. Its thick and corky fruit wall is adapted for water dispersal.
Uses and Folklore	It is a source of low grade timber and dammar (resin) which can be used as varnish.
References	Ashton, P. S., 1982. Dipterocarpaceae. *Flora Malesiana*, Series I, **9**: 237−552. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. LaFrankie Jr., J. V., 2010. *Trees of Tropical Asia: An Illustrated Guide to Diversity*. Black Tree Publications, Inc., Manila. 750 pp. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. Symington., C. F., 2004. Foresters' Manual of Dipterocarps. *Malayan Forest Record No. 16*. Percetakan Haji Jantan Sdn. Bhd., Kuala Lumpur. 519 pp.



Vernonia arborea Buch.-Ham. ex Buch.-Ham.: a, alternate leaves of a dried branch; b, lower surface of dried leaf with prominent veins in the leaf blade; c, hairy leaf stalk; d, upper surface of dried leaf; e, close-up of the flower clusters. Scale bars = 5 cm (a, b, d), 2 cm (c), 5 mm (e). (Photographs by: Koh Choon Yen [a–d] and Hugh Tan Tiang Wah [e]).

Scientific Name	*Vernonia arborea* Buch.-Ham. ex Buch.-Ham.
Main Group Key that Applies	Trees or Shrubs
Etymology	Latin *Vernonia*, commemorating the English botanist, W. Vernon; Latin *arborea*, tree, referring to the growth form of this species
Synonyms	*Vernonia javanica* DC.; *Vernonia wallichii* Ridl.
Common Names	Malay: berambung, bunga campa paya, bunga campat, gambung, hampas tebu, medang gambung, jangkang paya, mengabung, merambung bukit, tampang besi, temangau, tetepung; Chinese: 树斑鸠菊(shù bān jiù jú)
Scientific Family Name	Asteraceae
Common Family Name	sunflower family
Origin	From South China and India to Southeast Asia (including Singapore)
Growth Form	It is a shrub or small- to medium-sized tree, up to 30 m tall, with a conical or round crown. Larger individual tends to develop short buttress roots.
Habitat	It grows in disturbed or secondary forest from the lowlands to mountains, up to 1,600 m in altitude. It is known locally from Central Catchment Nature Reserve (including Nee Soon Swamp Forest) and the Western Catchment Area.
National Conservation Status	Vulnerable
Foliage	Its alternate, stalked leaves have leathery leaf blades that are light green to yellowish green, egg-shaped to drop-shaped, 8–25 by 3–10 cm, and often asymmetrical.
Flowers	It produces bisexual flowers that are white- or purple-petalled and 2 mm across. 5–6 flowers grow in a shortly-stalked flower head that is 6 mm across. The flower heads are usually clustered at the tips of the branches.
Fruits	It produces achenes (dry, indehiscent fruit) with hairs at one end, similar to the fruit of dandelions. The achenes are 2–3 mm long, longitudinally ribbed and flattened on two sides. Their parachute-like hairs are white, and 5–8 mm long.
Uses and Folklore	The plant is harvested for timber to build houses or matches. The plant is also used as medicine by locals.
References	Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. Chen, Y & Gilbert, M. G. Asteraceae. Tribe Vernonieae. *Flora of China*, **20–21**. http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=200024612. (Accessed 26 Mar.2013). Corner, E. J. H., 1988. *Wayside Trees of Malaya. Volumes 1 & 2. 3rd Edition.* The Malayan Nature Society, Kuala Lumpur. 861 pp. + 236 pls. Keng, H., 1989. Compositae. *Tree flora of Malaya*, **4**: 69–71 Slik, J. W. F., 2009 onwards. *Plants of Southeast Asia*. http://www.asianplant.net/. (Accessed 2 Sep.2011).



Xanthophyllum flavescens Roxb.: a, alternate leaves; b, a pair of pale yellowish glands (arrowed) is present near the leaf blade base margin on the lower surface. Scale bars = 5 cm (a), 1 cm (b). (Photographs by: Li Tianjiao [a] and Tan Siu Yueh [b]).

Scientific Name	*Xanthophyllum flavescens* Roxb.
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *xanthos*, yellow; Greek *phullon*, leaf, referring to the leaves that are often yellow when dry; Latin *flavescens*, becoming yellow, a reference to the dried leaf colour
Synonyms	*Banisterodes affine* (Miq.) O.K.; *Kaulfussia geminiflora* Dennst.; *Xanthophyllum affine* Korth. ex Miq.; *Xanthophyllum siamense* Craib
Common Name	–
Scientific Family Name	Polygalaceae
Common Family Name	milkwort family
Origin	Sumatra, Peninsular Malaysia, Singapore, Borneo, and the Philippines
Growth Form	It is a tree up to 30 m tall.
Habitat	It grows in lowland and montane forests. It is known locally from Nee Soon Swamp Forest.
National Conservation Status	Endangered
Foliage	Its stalked, alternate leaves have leaf blades that are elliptic to lance-shaped, and 6.5–35 by 2–13 cm, with a tip that is sometimes sharply pointed. The leaf blade base is wedge-shaped or sometimes tapered with margins that curve upwards. The leaf blades are yellow to greyish green with a fainter shade along the midrib. The midribs are often depressed at the base and slightly hairy, while the secondary veins are in 5–16 pairs, usually forming a more or less distinct intramarginal vein in the apical half. Glands are present on the lower surface of leaf blades and are smooth or hairy, usually dispersed, and differ in size and numbers.
Flowers	Its flowers are white and petals in the upper layer have an orange-yellow spot.
Fruits	Its round or egg-shaped, up to 1.5 cm wide fruits have a blunt or pointed apex. The fruits are cream to brownish and smooth or covered with blister-like lumps.
Uses and Folklore	The wood is used locally and the fruits are edible.
References	Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van der Meijden, R., 1988. Polygalaceae. *Flora Malesiana*, Series I, **10**: 455−540.

Xanthophyllum vitellinum (Blume) D.Dietr.: a, alternate leaves; b, lower surface of leaves; c, trunk bark; d, prominent axillary buds (arrowed) which are narrowly conical; e, white flowers with yellow centres. Scale bars = 10 cm (a, b), 2 cm (c, d), 1 cm (e). (Photographs by: Koh Choon Yen [a–c], Teo Siyang [d], and Hugh Tan Tiang Wah [e]).

Scientific Name	*Xanthophyllum vitellinum* (Blume) D.Dietr.
Main Group Key that Applies	Trees or Shrubs
Etymology	Greek *xanthos*, yellow; Greek *phullon*, leaf, referring to the leaves that are often yellow when dry; Latin *vitellinus*, egg-yolk yellow, referring to the colour of the petals
Synonyms	*Banisteroides vitellinum* (Blume) Kuntze; *Jackia vitellina* Blume; *Monnina vitellina* (Blume) Spreng.
Common Names	Malay: dedali paya, lima beruk, minyak beruk, rawai
Scientific Family Name	Polygalaceae
Common Family Name	milkwort family
Origin	Sumatra, Peninsular Malaysia, Singapore, and Borneo
Growth Form	It is a tree up to 30 m tall.
Habitat	It grows in primary, riverine or lower montane forests, on flat land, hill sides or the tops of ridges, up to 800 m in altitude. It occurs along Hendon Road, in Nee Soon Swamp Forest, vicinities of Upper Seletar, Peirce and MacRitchie reservoirs.
National Conservation Status	Vulnerable
Foliage	Its alternate, stalked leaves have membranous or almost leathery leaf blades that are egg-shaped, and 8–30 by 3.5–11 cm. The upper surface of the leaf blades is greyish green to yellowish brown. The secondary veins 6–11 pairs, in the distal half forming an indistinct intramarginal vein. Glands are usually present near the midrib or dispersed, and more than 10.
Flowers	Its flowering shoots are 8–30 cm long, and often branched in pairs in the lower part. Its yellow- or white-petalled flowers are found in clusters of up to three in the lower part, and singly in the upper part. Petals are orange to dark red when dry and often have a white coating.
Fruits	Its 1-seeded fruits are round, dull or shiny, and up to 1.8 cm wide. Fruits can be light or dark reddish brown with a thin pericarp.
Uses and Folklore	It is cultivated as a park tree. It is suggested that the fruits may be used for oil.
References	Backer, C. A., 1936. *Verklarend Woordenboek.* Visser & Co., Batavia. 664 pp. Burkill, I. H., 1966. *A Dictionary of the Economic Products of the Malay Peninsula. Volumes I & II*. Governments of Malaysia and Singapore, Kuala Lumpur. xiv + 2,444 pp. de Wilde, W. J. J. O. & B. E. E. Duyfjes, 2007. Polygalaceae. *Tree Flora of Sabah and Sarawak*, **6**: 219−295. Stearn, W. T., 1996. *Stearn's Dictionary of Plant Names for Gardeners. A Handbook on the Origin and Meaning of the Botanical Names of Some Cultivated Plants*. Cassell Publishers Limited, London. 363 pp. van der Meijden, R., 1988. Polygalaceae. *Flora Malesiana*, Series I, **10**: 455−540.

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