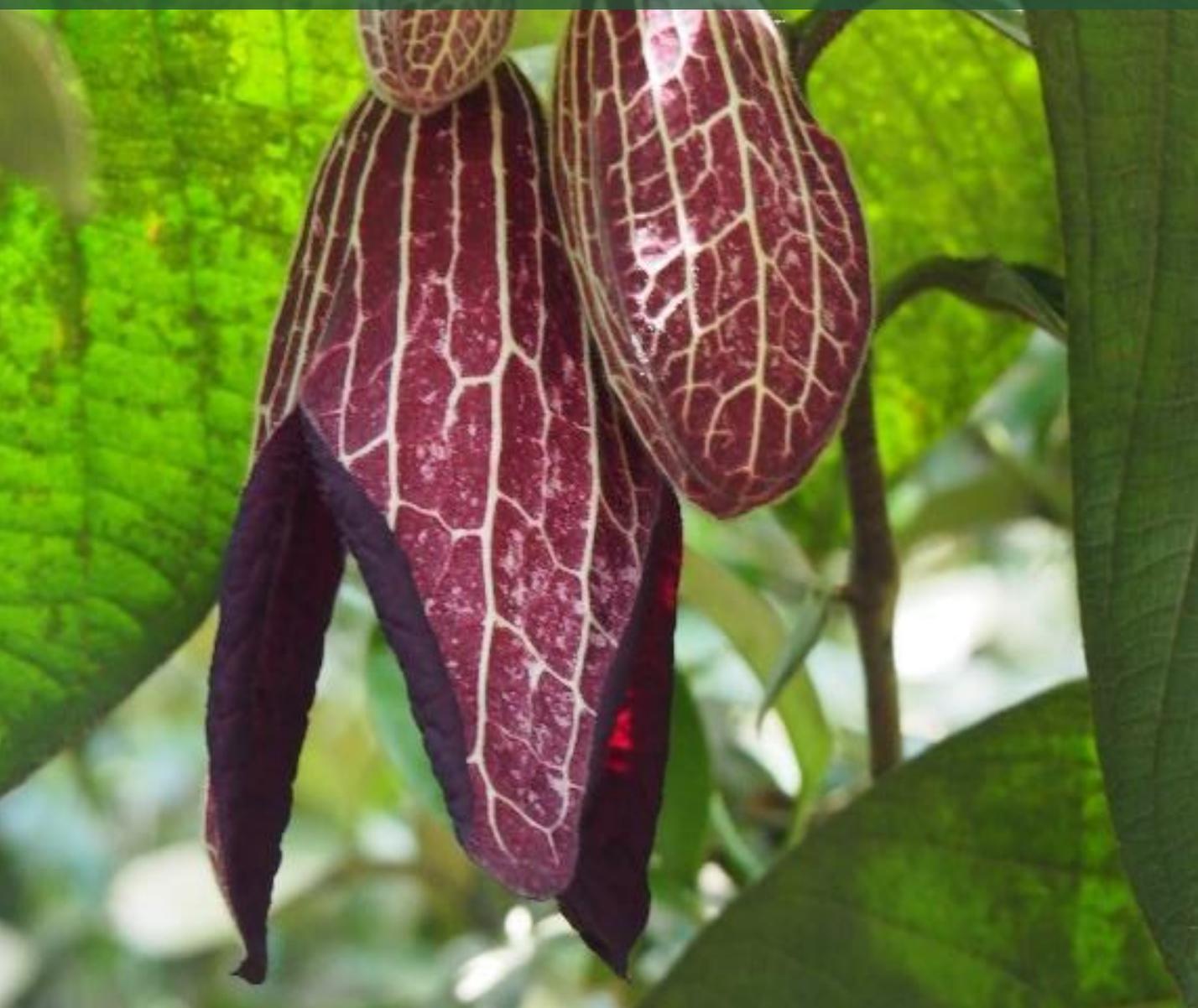
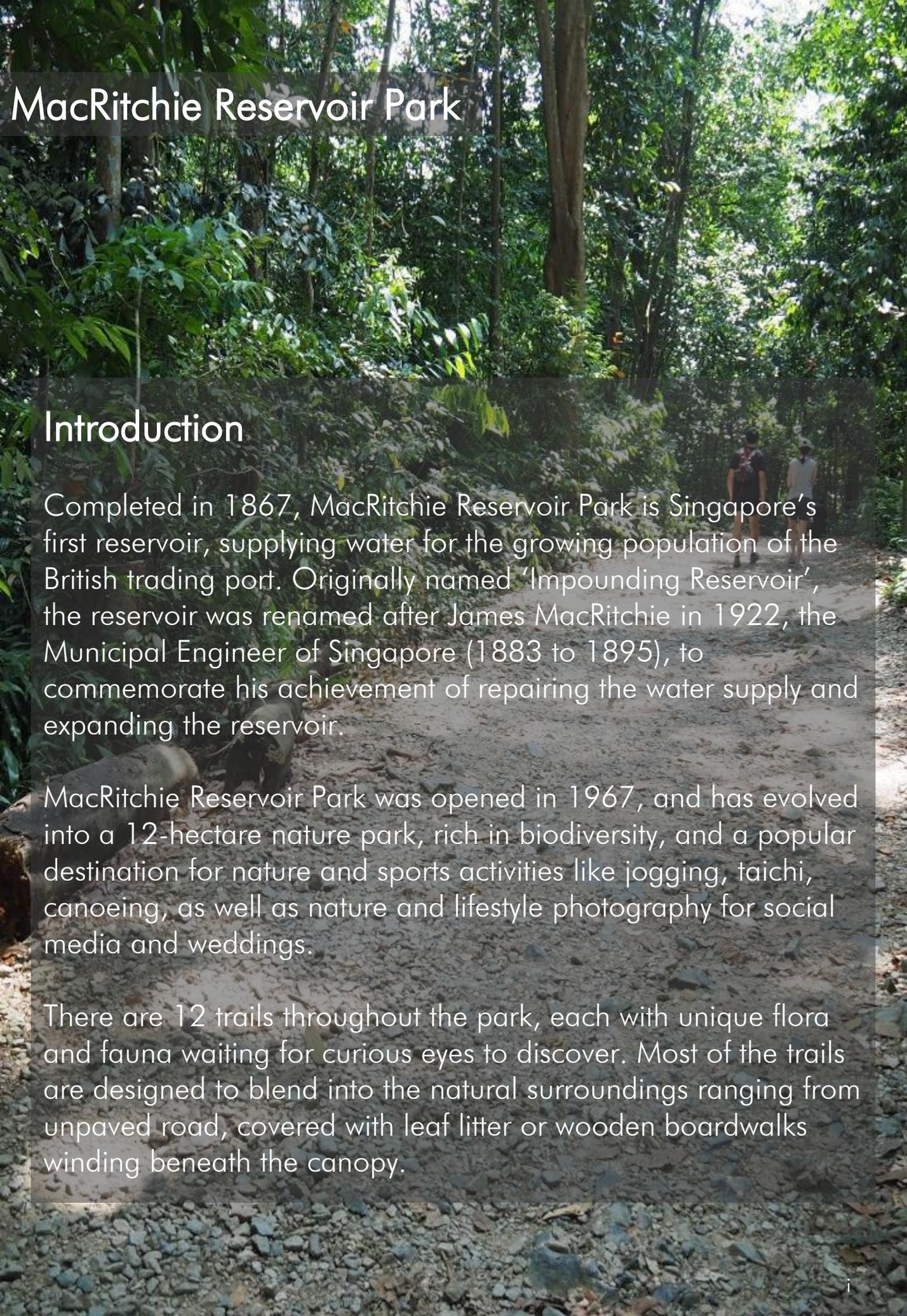


A Field Guide to the
Plants of
MacRitchie

**Shrubs and Herbaceous Plants
(E to Z)**



MacRitchie Reservoir Park



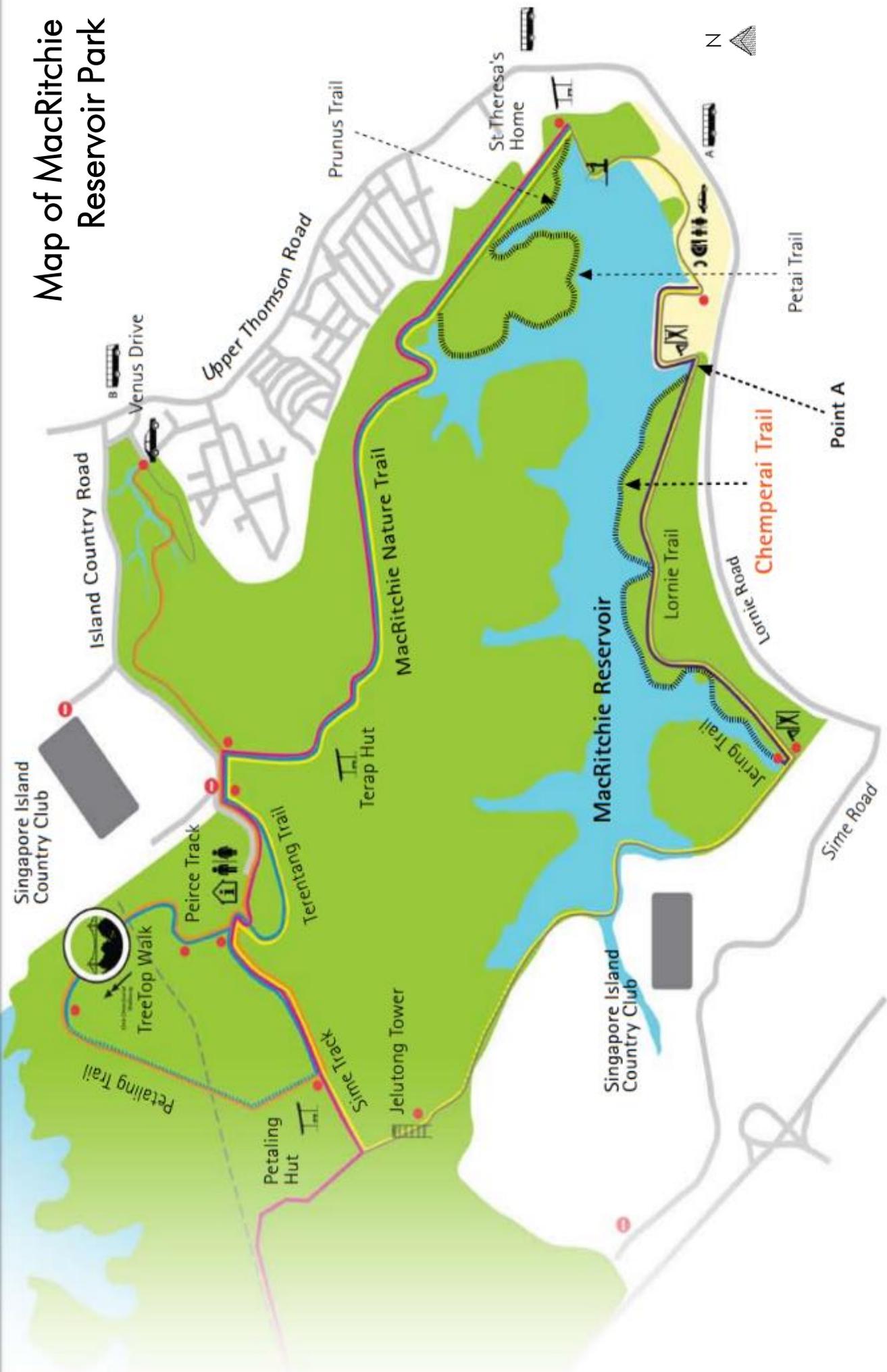
Introduction

Completed in 1867, MacRitchie Reservoir Park is Singapore's first reservoir, supplying water for the growing population of the British trading port. Originally named 'Impounding Reservoir', the reservoir was renamed after James MacRitchie in 1922, the Municipal Engineer of Singapore (1883 to 1895), to commemorate his achievement of repairing the water supply and expanding the reservoir.

MacRitchie Reservoir Park was opened in 1967, and has evolved into a 12-hectare nature park, rich in biodiversity, and a popular destination for nature and sports activities like jogging, taichi, canoeing, as well as nature and lifestyle photography for social media and weddings.

There are 12 trails throughout the park, each with unique flora and fauna waiting for curious eyes to discover. Most of the trails are designed to blend into the natural surroundings ranging from unpaved road, covered with leaf litter or wooden boardwalks winding beneath the canopy.

Map of MacRitchie Reservoir Park



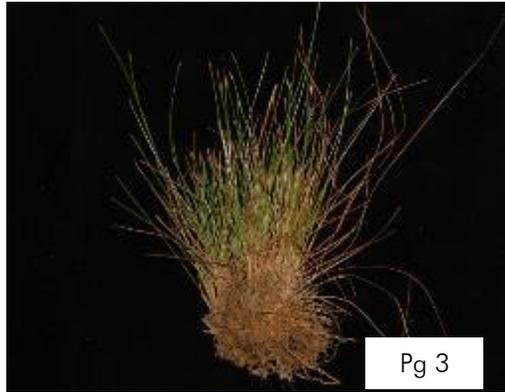
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Eleocharis dulcis

Chinese Water Chestnut



Species Name: *Eleocharis dulcis*

Family: Cyperaceae

Common Name: Chinese Water Chestnut, 马蹄

Distribution: From tropical Africa, Southeast Asia to Australia

Conservation Status: Native to Singapore (Vulnerable)

Eleocharis dulcis can grow up to 90 cm tall. Though it is leafless, photosynthesis occurs in its green stem. The stem is cylindrical, spongy and hollow in the middle. It is widely cultivated for its edible and sweet tasting tubers.

It grows in open marshy places along the coast and inland, often forming large stands.





Eriocaulon willdenovianum

Long-leaved Pipewort



Species Name: *Eriocaulon willdenovianum*

Family: Eriocaulaceae

Common Name: Long-leaved Pipewort, Rumpit Butang

Distribution: From Madagascar, Southeast Asia to Papua New Guinea and Australia

Conservation Status: Native to Singapore (Vulnerable)

Eriocaulon willdenovianum is a herbaceous plant with short tufted stems. The roots and basal leaf sheath are often submerged in shallow water, while the leaves and inflorescence grow above the water surface. The flowers are a small, compact head with floral bracts densely covered in white hairs.

It is found in partial shade or exposed waterlogged conditions, along the margins of muddy shallow pools, reservoirs and streams.



Fimbristylis pauciflora

Rumput Girah



Species Name: *Fimbristylis pauciflora*

Family: Cyperaceae

Common Name: Rumput Girah, Rumput Sapi

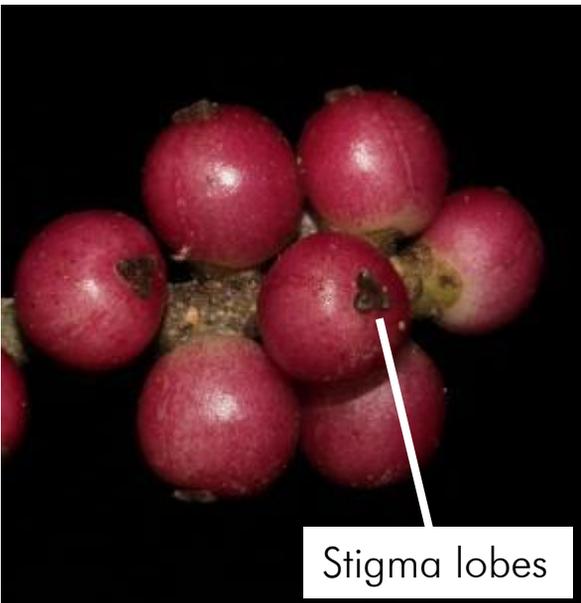
Distribution: From Hainan, Southeast Asia to northern Australia

Conservation Status: Native to Singapore (Least Concern)

A herbaceous plant, up to 30 cm tall, *Fimbristylis pauciflora* appears leafless as the leaves are mostly reduced to bladeless sheaths. Photosynthesis occurs in its green, long and wiry stems. The inflorescence consists of a single, terminal, narrow spikelet. In Brunei, it is traditionally rubbed on the body to induce labour and also used as green manure in padi fields.

It is found in wet grasslands, savannahs, forest floors and swamp margins.





Stigma lobes

Hanguana rubinea



Species Name: *Hanguana rubinea*

Family: Hanguanaceae

Common Name: -

Distribution: Singapore

Conservation Status: Native to Singapore (Critically Endangered)

Hanguana rubinea is a herbaceous plant, up to 1.5 m tall and usually have up to 25 leaves at a time. The leaves arch and can reach up to 1.65 m long. Male and female flowers occur on different plants. The fruit ripens ruby-red and have characteristic stigma lobes which are fused at the base.

It is usually found on the slopes of streams in primary or partially disturbed primary lowland forests.



Hedyotis auricularia



Species Name: *Hedyotis auricularia*

Family: Rubiaceae

Common Name: -

Distribution: Asia to Australia

Conservation Status: Native to Singapore
(Presumed Nationally Extinct)

Hedyotis auricularia is a herbaceous plant, up to 50 cm tall. It has bristle-like stipules (2 – 8 mm long) which often have glands at the tip. The leaves are ovate-lanceolate, about 1 – 10 cm long and 1 – 3.5 cm wide. The flowers are white, small and tubular. Brittle yet rough to touch, the fruit is roundish (2 – 2.5 cm long) and does not split open at maturity. Each fruit contains many angular black seeds.

It is found in open fields and roadsides.



Hedyotis diffusa



Species Name: *Hedyotis diffusa*

Family: Rubiaceae

Common Name: 白花蛇耳草

Distribution: Asia

Conservation Status: Native to Singapore (Least Concern)

Hedyotis diffusa is a herbaceous plant, about 50 cm tall. Leaves are strap-like, about 4 – 5 cm long and 0.2 – 0.5 cm wide. The white tubular flowers usually occur singly and rarely in clusters of 2 – 3. Small and round, the fruit splits open at maturity and reveals 20 seeds within.

It is popularly used in traditional medicine for a wide range of health benefits and is also a key ingredient of herbal teas in Asia.

It is found on lawns in moist clayey or sandy soils.



Hedyotis prostrata



Species Name: *Hedyotis prostrata*
Family: Rubiaceae
Common Name: -
Distribution: Southeast Asia
Conservation Status: Native to Singapore (Vulnerable)

Hedyotis prostrata is a herbaceous plant, about 60 cm tall, with triangular stipules and elliptic leaves. Tiny, white to violet coloured flowers grow from the axils in clusters of 8 – 15. The fruit turn from white to green when mature. Inside each fruit, there are 16–20 small triangular seeds.

In the Philippines, a decoction of the root is used in traditional medicine to treat a variety of ailments such as dysentery, colic and stomachaches.

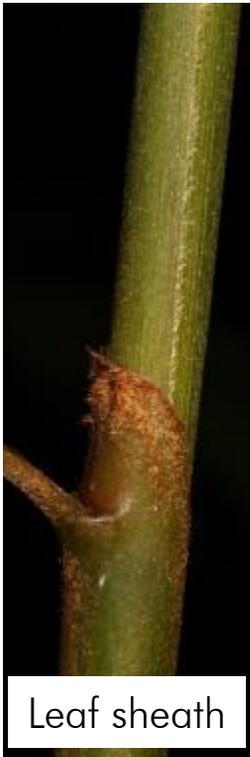
It is found in forested areas, sometimes along streams.



Fruits



Hornstedtia leonurus



Leaf sheath

Species Name: *Hornstedtia leonurus*
Family: Zingiberaceae
Common Name: -
Distribution: Peninsular Malaysia, Singapore and Borneo
Conservation Status: Native to Singapore (Vulnerable)

A herbaceous plant, up to 3 m tall, the *Hornstedtia leonurus* has underground rhizome and large leaves, up to 45 cm long, with yellow patch along the midrib. The leaf sheath is shallowly ribbed and dark brown. The spike-like inflorescence is a deep red colour tinged with white. This showy inflorescence can be easily overlooked as it grows from the base of the plant, hidden among the leaf litter.

It can be found in shaded areas near streams in secondary rainforests.





Hornstedtia scyphifera var. *scyphifera*



Species Name: *Hornstedtia scyphifera* var. *scyphifera*

Family: Zingiberaceae

Common Name: Great Spindle Ginger

Distribution: Malesia

Conservation Status: Native to Singapore
(Vulnerable)

A herbaceous plant with underground rhizomes, *Hornstedtia scyphifera* var. *scyphifera* can reach 0.8 – 1 m long. It bears large leaves and both the leaves and leaf sheath can be densely hairy or hairless. Its spike-like inflorescence measuring 15 cm long can be found at the base of the plant. Inflorescence bear red bracts which are longitudinally ribbed on the surface. The dark red flowers are rich in nectar and are likely pollinated by birds like the Spiderhunter.

This ginger can be found in shaded areas of secondary rainforests.



Leaf sheath



Inflorescence



Infructescence



Hypolytrum nemorum var. *proliferum*



Species Name: *Hypolytrum nemorum* var. *proliferum*
Family: Cyperaceae
Common Name: Wooded Hypolytrum
Distribution: Vietnam, Peninsular Malaysia, Sumatra and Borneo.
Conservation Status: Native to Singapore (Vulnerable)

A grass-like plant, up to 60 cm tall, the leaves of the *Hypolytrum nemorum* var. *proliferum* are narrow and sword-like, reaching up to 25 cm long. Inflorescence comprises of numerous spikes. Each spike has multiple nut-like structures known as spicoid. Male flowers can be found within the bracts on the lower part of the spicoid while female flowers can be found on the terminal end.

It can be found in forested areas and along streams.



Ischaemum muticum Seashore Centipede Grass



Species Name: *Ischaemum muticum*

Family: Poaceae

Common Name: Seashore Centipede Grass,
Rumput Tembaga Jantan

Distribution: From Sri Lanka, India to Southeast
Asia and northern Australia

Conservation Status: Native to Singapore (Least
Concern)

This perennial grass can grow up to 1 m tall. The stem is mat-forming and can be upright or trailing. The nodes are usually hairless and roots may develop from the nodes if they are in contact with the ground. Leaf is linear, giving it a sword-like appearance. Inflorescence is usually still included in the sheath even when it matures.

It is found on sandy soils of disturbed areas and along the road side.



Ixora congesta
Malayan Ixora



Species Name: *Ixora congesta*
Family: Rubiaceae
Common Name: Malayan Ixora, Jarum-jarum
Distribution: Western Malesia to the Moluccas
Conservation Status: Native to Singapore (Least Concern)

Ixora congesta is a free-flowering shrub or small tree that can grow to 4 m tall. Leaves are elliptic and oppositely arranged. The flowers occur in a compact cluster. Each flower has a long floral tube which gives them a needle-like appearance. The brightly coloured flowers turn from yellowish orange to red. The berry-like fruit ripens from red to black and is well loved by birds.



This species can be found in rainforests and limestone forests.



Ixora lobbii var. *lobbii* Glossy Ixora



Species Name: *Ixora lobbii* var. *lobbii*

Family: Rubiaceae

Common Name: Glossy Ixora, Bunga Selang

Distribution: From Thailand to Borneo

Conservation Status: Native to Singapore
(Endangered)

Ixora lobbii var. *lobbii* is a free-flowering shrub or tree that can grow up to 6 m high. Its narrowly elliptically shaped leaves can reach up to 7 cm long. The secondary veins are prominent and the leaf surface is bumpy between the veins. The flowers have a long floral tube which give them a needle-like appearance. Rich in nectar, the flowers are frequently visited by birds and butterflies. The fruit is berry-like and is also well loved by fruit-eating birds.

It can be found in rainforests to montane forests, up to 1200 m altitude.



Lasianthus constrictus



Species Name: *Lasianthus constrictus*

Family: Rubiaceae

Common Name: -

Distribution: Myanmar, Thailand, Peninsular Malaysia, Sumatra, Java and Borneo

Conservation Status: Native to Singapore (Endangered)

Lasianthus constrictus is a shrub or tree that can reach up to 2 m tall. Leaves are elliptic and slightly hairy on the midrib and secondary veins. Occurring on the leaf axils, the white flowers are small and trumpet shaped with a densely hairy inner surface. The berry-like fruit is in shape and ripen from blue to black. It contains 2 – 4 crescent shaped seeds within.

This species can be found in the understorey of rainforests.





Leea indica

Mali-mali



Species Name: *Leea indica*
Family: Vitaceae
Common Name: Mali-mali, Merbati Padang
Distribution: From Sri Lanka to Southeast Asia
Conservation Status: Native to Singapore (Least Concern)

Leea indica is a free-flowering shrub or small tree, reaching about 2 – 10 m tall. The nodes on the branches are reddish to red-purple. Stipule is large and obovate, and leaves behind a broad scar after falling. The leaves are compound, usually 1 – 3 pinnate. Occurring in clusters, the flowers are small (3.5 mm diameter) and greenish cream coloured. The berry-like fruit turns black when ripe.

In Southeast Asia, the leaves, bark and roots are traditionally used to treat diverse ailments ranging from wounded skin to body pains.

It is found in rainforests, deciduous forests, peat swamp forests and open thickets along roadsides.



Leea rubra
Mali-mali Puchok Merah



Stipule



Species Name: *Leea rubra*
Family: Vitaceae
Common Name: Mali-mali Puchok Merah
Distribution: From India, Southeast Asia to Australia
Conservation Status: Native to Singapore
 (Presumed Nationally Extinct)

This native shrub is free-flowering and reaching up to 3 m tall. Leaves are compound and 2 – 4 pinnate. The stipule is characteristically narrow and leaves a scar after falling off. Though small, the scarlet red flowers cluster together to form a sizeable inflorescence that stand out from the lush green foliage. The berry-like fruit is distinctly lobed around the seeds.

In Southern and Eastern Thailand, the young leaves or shoots are cooked and eaten as vegetable by the ethnic community.

It can be found in rainforests, swamp forests up to 600 m altitude.



Lepionurus sylvestris Chemperai Gajah



Species Name: *Lepionurus sylvestris*

Family: Opiliaceae

Common Name: Chemperai Gajah

Distribution: From India to Southeast Asia

Conservation Status: Native to Singapore (Critically Endangered)

This native shrub can reach up to 2.5m tall. The leaves are egg-shaped with 6 – 10 prominent lateral veins. Leaf margin is slightly toothed. Flowers are small, greenish yellow and occurs in clusters, up to 14 cm long. Flowers are fragile and falls off easily when touched. Fruit can be found in clusters of 1 – 3. They are elliptic, ripen red and contain 1 seed each.

In traditional medicine of Malaysia, a poultice made from the aerial parts of the plant or pounded root is applied to treat headaches in children.

It is found in rainforests and swamp forests, up to 500 m altitude.



Lophatherum gracile

Crested Grass



Species Name: *Lophatherum gracile*

Family: Poaceae

Common Name: Crested Grass, Rumput Jarang

Distribution: From India, Southeast Asia to
Micronesia and Australia

Conservation Status: Native to Singapore (Least
Common)

This native grass can reach 0.3 – 1.5 m tall, with single or loosely tufted stems that are small, knotty and hidden underground. The leaves are long and tapering, resembling a sword. The flowering stalk can reach 45 cm long and comprises of many spikelets.

It is found in shady and humid areas in the rainforests.



Manihot esculenta

Cassava



Species Name: *Manihot esculenta*
Family: Euphorbiaceae
Common Name: Cassava, Tapioca
Distribution: Likely South America
Conservation Status: Non-native

The Cassava is a shrub with tuberous roots that can grow to 2 – 4 m tall. It produces milky sap when any of its plants parts are injured. Leaves are 3 – 7 lobed with long leaf stalk. Flowers are bell-shaped and occur in a loose cluster of 3 – 5. Fruit is round with 6 narrow yet wavy wings, each containing 3 seeds within.

The tuberous roots are a staple food in many tropical countries and is believed to have been in cultivation for thousands of years. They must be thoroughly cooked before consumption to remove cyanogenic glycosides found in raw Cassava root.

Locally, it can be found growing wild in disturbed areas or remnants of old villages.



Roots



Mapania cuspidata

Siak-siak Rimba



Species Name: *Mapania cuspidata*

Family: Cyperaceae

Common Name: Siak-siak Rimba, Sempit

Distribution: Andaman Islands to New Guinea.

Conservation Status: Native to Singapore (Vulnerable)

Mapania cuspidata is a herbaceous plant that can grow up to 29 cm tall. It is characterized by its broad leaf blades which narrow abruptly at the base to form a petiole-like structure. The older leaves at the bottom are usually reduced to bladeless sheaths. The underside of the young leaves are pinkish red and turn green when mature. Occurring in groups of 1 – 3, the flowering cluster is elliptic and spike-like.

In Peninsular Malaysia, the leaves are traditionally used as a remedy for fever.

It can be found along streams in the understorey of rainforests.



Mayaca fluviatilis

Stream Bogmoss



Species Name: *Mayaca fluviatilis*
Family: Mayacaceae
Common Name: Stream Bogmoss
Distribution: Tropical Americas
Conservation Status: Non-Native

Mayaca fluviatilis is an aquatic herbaceous plant that can be found in both submerged and emergent forms. The submerged form can reach up to 1 m long, often creating large floating mats while the emergent form can reach up to 20 cm tall. The leaves are spirally arranged, triangular and stalkless. The flowers have 3 petals which are light violet to pink with a white center. The fruit is a dry capsule that split into 3 parts at maturity.

It is widely used as an aquarium plant. Due to its invasive potential reported in Sri Lanka and Australia, monitoring and active management of this species in Singapore may be required.

It is found along the margins of freshwater bodies.





Melastoma malabathricum

Sendudok



Species Name: *Melastoma malabathricum*

Family: Melastomataceae

Common Name: Sendudok

Distribution: Tropical Asia to Australia

Conservation Status: Native to Singapore (Least Concern)

It is a shrub, up to 3 m tall. Leaves are lanceolate and hairy. Each leaf has 2 – 4 prominent longitudinal veins running from the base to the tip. Flowers occur in a cluster of 3 – 12. They are usually violet (sometimes white) with numerous long stamens. Fruit is fleshy and splits open when ripe, revealing small orange-coloured seeds which are surrounded with dark edible pulp.

In Southeast Asia, the leaves are applied externally to treat wounds.

It is found in rainforests, savannas and rocky hills, up to 1900 m.



Oxalis barrelieri

Lavender Sorrel



Species Name: *Oxalis barrelieri*

Family: Oxalidaceae

Common Name: Lavender Sorrel, Belimbing Tanah

Distribution: Tropical America

Conservation Status: Non-Native

It is a herbaceous plant, up to 1.5 m tall with hairy stems. Each leaf has 3 leaflets. Occur in clusters of 4 – 16, flowers are pink with yellow spots. Fruits are capsular with 5 lobes and contain 3 – 4 seeds within.

In Indonesia, the leaves are eaten for their sour taste. Though edible in small quantities, excessive or regular consumption should be avoided as the leaves accumulate large amounts of oxalic acid which is harmful to human health if ingested.

It is found in disturbed areas such as gardens, along roads and rivers, fields, and village groves up to 1500 m.



Pandanus houlletii

Pandan Hutan



Species Name: *Pandanus houlletii*

Family: Pandanaceae

Common Name: Pandan Hutan

Distribution: Thailand, Peninsular Malaysia and Singapore

Conservation Status: Native to Singapore (Critically Endangered)

It is a large shrub, up to 2 - 3 m tall. The leaves are linear (up to 2.5 m long) and arching with a long drip tip. They are coppery purple when young and becoming green as they mature. The pineapple-like fruit is orange and cylindrical. Ripe fruit is soft and said to be sweet tasting like a pineapple.

It is found in the shaded areas of rainforests.



Panicum laxum



Species Name: *Panicum laxum*
Family: Poaceae
Common Name:
Distribution: South America
Conservation Status: Non-native

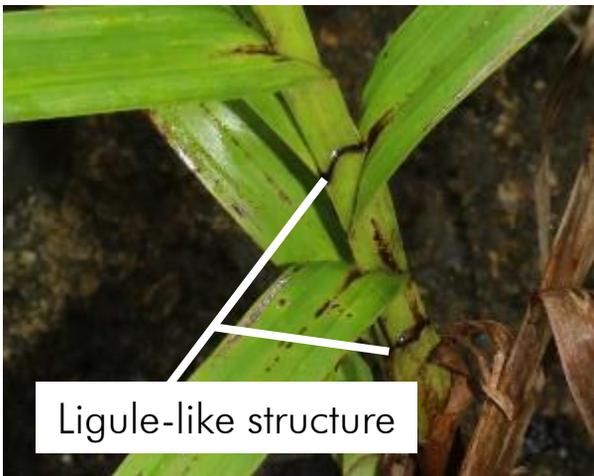
It is a perennial grass, up to 0.45 m tall. Stem is tufted and hollow when cut. It can be upright or bent like a knee. The sheath is glabrous with transverse veinlets. The leaf blade is linear and narrow, up to 11 cm long. It rolls inwards when young. The flowering cluster is branched and spike-like.

It is found in moist to wet grasslands, forest edges and roadsides.



Scleria ciliaris

Nutrush



Ligule-like structure



Species Name: *Scleria ciliaris*

Family: Cyperaceae

Common Name: Nutrush, Rumput Sendayan Bukit, 华珍珠茅

Distribution: Tropical and subtropical Asia to the Caroline Islands

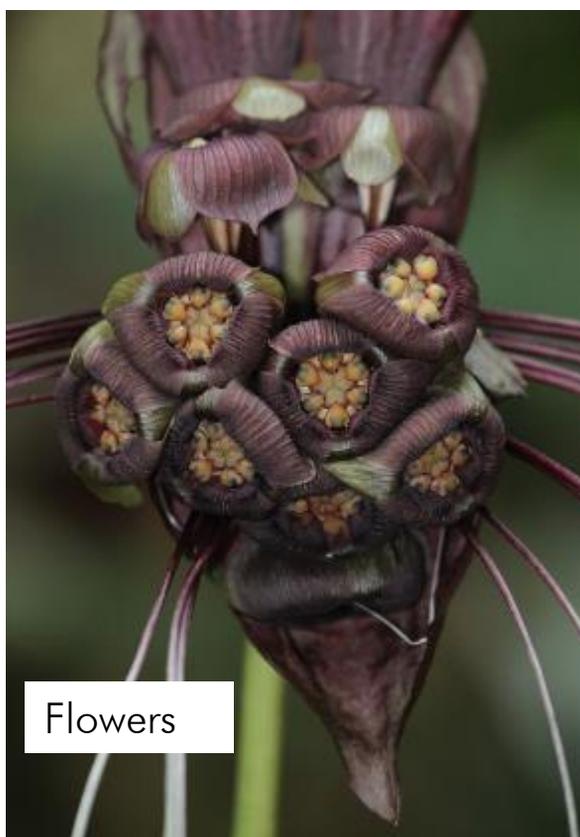
Conservation Status: Native to Singapore (Least Concern)

It is a grass-like plant, 0.7 – 1.3 m tall. The stem and leaves are 3-angled in a cross section. Linear and sword-like, the leaves can reach up to 42 cm long. It is recognizable by the long, thin and dry appendage of the ligule-like structure at the tip of the leaf sheath. The flowers occur in branched clusters together with long stiff bracts, giving a prickly or spike-like appearance. The seed is nut-like and can be shiny white or slightly purplish grey.

It is found in rainforests and savannahs.



Tacca cristata Black Lily



Flowers



Fruits

Species Name: *Tacca cristata*

Family: Taccaceae

Common Name: Black Lily, Keladi Murai

Distribution: Peninsular Malaysia and Singapore

Conservation Status: Native to Singapore
(Vulnerable)

It is a herbaceous plant, up to 1 m tall. The stem is mostly hidden underground, and only emerges about 3 cm above ground. Leaves are semi-glossy green with a long leaf stalk (up to 15 cm long). The flowering stalk emerges above the leaves and can reach up to 65 cm tall. Borne in clusters of 4 – 19, the flowers are surrounded by both dark purple to brownish green leafy bracts as well as long whisker-like bracts. During fruit development, the stalk gradually droops to the ground and turn dark brown-purple when ripe.

It is found in moist to humid areas of lowland rainforest.



Thottea grandiflora Hempedu Beruang



Flowers



Fruits

Species Name: *Thottea grandiflora*

Family: Aristolochiaceae

Common Name: Hempedu Beruang

Distribution: Myanmar, Thailand, Peninsular Malaysia and Singapore

Conservation Status: Native to Singapore (Vulnerable)

It is a shrub, up to 2 m tall. The leaves are egg-shaped and hairy. Often hidden beneath the leaves, the flowers are dark purple-red with contrasting white veins. These bell-shaped flowers are 3-lobed and hang pendulously. The fruit is narrow, angular and densely covered with hairs. At maturity, the fruit turns brown and splits open.

The root is used as a folk remedy in Malaysia to treat fever and dysentery.

It is found in rainforest and seasonal freshwater swamp.



Zingiber puberulum var. *puberulum*



Species Name: *Zingiber puberulum* var. *puberulum*

Family: Zingiberaceae

Common Name: -

Distribution: Southeast Asia

Conservation Status: Native to Singapore
(Endangered)

It is a herbaceous plant, up to 2 m tall, with aromatic rhizomes. Each leafy shoot comprises of up to 23 leaves. The leaf sheath and ligule are covered with yellowish brown soft hairs. The leaves are elliptic, up to 35 cm long and 8 cm wide, and can sometimes have a dull silvery finish. Occurring at the base of the plant, the spike-like inflorescence has vibrant pink bracts with white to cream flowers.

It is found in shaded areas of rainforests and freshwater swamp forests, up to 600 m altitude.

References

1. Faridah Hanum, I., and Van Der Maesen, L.J.G. (eds.) 1997. Plant Resources of South-East Asia Volume 11. Auxiliary plants. Leiden: Prosea Foundation. 389 pages.
2. George, A.S., Orchard, A.E., Hewson, H.J. & Thompson, H.S. (eds) (1993). Flora of Australia Volume 50, Oceanic Islands 2. Canberra: Australian Government Publishing Service. 606 pages.
3. Hashim, S.E. and Sirat, H.M. (2018). Chemical Composition, Antioxidant, Antimicrobial, and α -Glucosidase Activities of Essential Oils of *Hornstedtia scyphifera* (Zingiberaceae). *Natural Product Communications* 13 (2): 229 – 232
4. Hou, D. (1984). Aristolochiaceae. In: van Steenis, C.G.G.J. (ed.) *Flora Malesiana*, ser.1, vol 10 (1): 53 – 108. Dordrecht: Kluwer Academic Publishers.
5. Ippolito, A. and Armstrong, J.E. (1993). Floral Biology of *Hornstedtia scottiana* (Zingiberaceae) in a Lowland Rain Forest of Australia. *Biotropica* 23 (3): 281 – 289.
6. Keng, H. (1990). *The Concise Flora of Singapore: Gymnosperms and Dicotyledons*. Singapore: Singapore University Press.
7. Keng, H., Chin, S.C. & Tan, H.T.W. (1998). *The Concise Flora of Singapore*, vol. 2, Monocotyledons. Singapore: Singapore University Press.
8. Lemmens, R.H.M.J. and Bunyaphatsara, N. (eds.) 2003. Plant Resources of South-East Asia Volume 12 (3). Medicinal and poisonous plants 3. Leiden: Prosea Foundation. 664 pages.
9. Leong-Škorničková, J. & Boyce, P.C. (2015). *Hanguana* in Singapore demystified: an overview with descriptions of three new species and a new record. *Gardens Bulletin Singapore* 67: 1–28.
10. Leong-Škorničková, J., Thame, A. & Chew, P.T. (2014). Notes on Singapore native Zingiberales I: A new species of *Zingiber* and notes on the identities of two further *Zingiber* taxa. *Gardens' Bulletin Singapore* 66(2): 153–167.
11. Lindsay, S., Middleton, D.J., Ho, B.C., Chong, K.Y, Turner, I.M., Ali Ibrahim, Alonso-García, M., Ang, W.F., Ashton, P.S., Athen, P. et al. (2022). *Flora of Singapore: Checklist and bibliography*. *Gardens Bulletin Singapore* 74(Suppl. 1): 3–860.
12. Maknoi, C. (2009). A preliminary study of the genus *Hornstedtia* (Zingiberaceae) in Thailand. *Thailand Forest Bulletin (Botany)*, Special Issue: 138 – 142.
13. Meyer, K. (2001). Revision of the Southeast Asian genus *Melastoma* (Melastomataceae). *Blumea* 46: 351–398.
14. Niissalo, M.A. & Leong-Škorničková, J. (2019). Mayacaceae. In: Middleton, D.J., Leong-Škorničková, J. & Lindsay, S. (ed.) *Flora of Singapore*, vol. 7, pp. 37–211. Singapore: National Parks Board.

References

15. Rogers, D.J. & Appan, S.G. (1973). *Flora Neotropica*, Vol. 13, *Manihot Manihotoides* (Euphorbiaceae). New York: Hafner Press. 272 pages
16. Simpson, D.A. (2019). Cyperaceae. In: Middleton, D.J., Leong-Škorničková, J. & Lindsay, S. (ed.) *Flora of Singapore*, vol. 7, pp. 37–211. Singapore: National Parks Board.
17. Suwanphakdee, C., Simpson, D.A., Hodgkinson, T.R. & Chantaranothai, P. (2020). A synopsis of Thai Piper (Piperaceae). *Thai Forest Bulletin (Botany)* 48 (2): 145–183.
18. Syahida-Emiza, S. (2013). Opiliaceae In: Kiew, R., Chung, R.C.K., Saw, L.G. & Soepadmo, E. (eds.) *Malayan Forest Records No. 49. Flora of Peninsular Malaysia, Series II: Seed Plants Volume 4*, 405 pages. Malaysia: Forest Research Institute Malaysia.
19. van Welzen, P.C. (2010). Leeaceae. In: Santisuk, T. & Larsen, K. (eds.) *Flora of Thailand*, vol. 10(2), pp. 141-198. Bangkok: The Forest Herbarium, Royal Forest Department.
20. Veldkamp, J.F. (1971). Oxalidaceae. In: van Steenis, C.G.G.J. (ed.) *Flora Malesiana*, ser.1, Vol 7 (1): 151 – 178. Leiden: Noordhoff
21. Veldkamp, J.F., Duistermaat, H., Wong, K.M., & Middleton, D.J. (2019). Poaceae. In: Middleton, D.J., Leong-Škorničková, J. & Lindsay, S. (ed.) *Flora of Singapore*, vol. 7, pp. 219–501. Singapore: National Parks Board.
22. Wong, K.M., Turner, I.M., Wang, R.J., Harwood, R., Seah, W.W., Ng, X.Y., Lim, R.C.J., Lua, H.K. and Mahyuni, R. (2019). Rubiaceae. In: Middleton, D.J., Leong-Škorničková, J. & Lindsay, S. (ed.) *Flora of Singapore*, vol. 13, pp. 1–358. Singapore: National Parks Board.
23. Wong, S.Y. & Chua, K.S. (2019). Phylogeny of *Tacca* (Taccaceae) and traits in reproductive structures, with description of a new Bornean species. *Biodiversitas* 20 (11): 3096 – 3118.
24. Yao, T.L. (2015) Aristolochiaceae. In: Kiew, R., Chung, R.C.K., Saw, L.G. & Soepadmo, E. (eds.) *Flora of Peninsular Malaysia. Series II: Seed Plants*, vol 5: 5 -46. Kepong: Forest Research Institute Malaysia.