NATURE IN SINGAPORE **16**: e2023119
Date of Publication: 18 December 2023
DOI: 10.26107/NIS-2023-0119

A contribution to the documentation of the natural heritage of Temasek Junior College, with a focus on plant diversity

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Abstract. To document the biodiversity of Temasek Junior College's campus in view of upcoming renovation works, several surveys were conducted to identify the various plant species there. There are 104 plant species belonging to 43 different families found on the campus. Amongst these 104 plant species, 21 (20.19%) are native, 81 (77.88%) are non-native and two (1.92%) are cryptogenic. Among the native plant species, one (0.96%) is Presumed Nationally Extinct, five (4.81%) are Critically Endangered, one (0.96%) is Endangered, five (4.81%) are Vulnerable, eight (7.69%) are Least Concern and one (0.96%) is Data Deficient. Among the non-native plant species, 14 (13.46%) are Naturalised, 15 (14.42%) are Casual, 47 (45.19%) are Cultivated only and five (4.81%) are Not Assessed. The list thus serves as a memorialisation of the original campus in view of its upcoming renovation works, serving as a guide for the conservation of the same heritage trees and biodiversity in the renovated campus.

Key words. biodiversity, checklist, flora, Singapore, vascular plants

Recommended citation. Lo HS & Chai Z (2023) A contribution to the documentation of the natural heritage of Temasek Junior College, with a focus on plant diversity. Nature in Singapore, 16: e2023119. DOI: 10.26107/NIS-2023-0119

INTRODUCTION

Much of the original vegetation of Singapore consisted of primary forests, which covered a large portion of the island in 1819 when Sir Stamford Raffles founded modern Singapore (Tan et al., 2009). These were part of the natural heritage that Singapore originally had, much of which was depleted when the clearance of land for plantation, agriculture and felling of trees for firewood began in the 1890s, and, subsequently, by the push for rapid economic growth. Many exotic species were also introduced, which subsequently adapted and established themselves in their new habitat. Nevertheless, despite urbanisation and changes to its natural habitats, Singapore still has a significant amount of biodiversity remaining (Chan et al., 2010). Today, Singapore still has 2,654 native plant taxa remaining (Lindsay et al., 2022) despite her small land area (73,430 ha) (Department of Statistics Singapore, 2022). The total vascular plant flora of Singapore consists of 4,737 species, consisting of 2,654 native plant species, 479 naturalised and casual non-native plant species, 101 cryptogenic plant species (Lindsay et al., 2022) and 1,503 cultivated only non-native plant species (Chong et al., 2009). This variety has resulted in Singapore being widely known as a 'Garden City', and this can also be seen in the government's goals of preserving our natural heritage and greenery in spite of the country's highly urbanised landscape.

Temasek Junior College (TJC) is actively adapting to the nation's goals of being a City in Nature (Singapore Green Plan 2030, 2023) by safeguarding Singapore's natural heritage at a campus level. TJC was first built in 1976 and opened in 1977 as Singapore's second government-funded Junior College. Located along 22 Bedok South Road (1° 19′ 9.0762″N, 103° 56′ 7.5012″E) with a land area of 6.4 ha, its campus (Fig. 1) has expanded numerous times to accommodate its growing student population, using this opportunity to further increase the variety of plants on site. With its good coverage of greenery, TJC is widely known as the 'Botanic Gardens of the East' (Temasek Junior College Web, 2021). With a wide range of flora nurtured on the TJC campus, a pictorial guide to the large variety of plants titled 'Flora of Temasek' was produced in 1987 (Ho et al., 1987). The book identifies a wide variety of trees and ornamental plants in the College, functioning as a guide and a reference book. Additionally, it serves as a means of identification, where some individual plants from the book's commission 35 years ago are still present today, a testament to their longevity.

The school was originally slated to temporarily relocate to the former Tampines Junior College campus at the beginning of 2022. This is because of the original site's impending renovation as part of the government's plan to refurbish old campuses to ensure that the facilities and buildings are up to date. All buildings in the old campus are to be torn down and replaced with high rise buildings of 14 storeys high. Although some iconic sites will be preserved or relocated, much of the existing greenery will be removed and replaced. However, because of the COVID-19 pandemic, this was postponed and renovation will begin in 2024 instead. The new campus at the original Bedok South site will be operational in 2028 (Temasek Junior College, 2021). Owing to the large changes the campus will undergo, it is important to re-investigate, update the plant species list and record new findings in TJC's original campus for future reference, so that some of the same species can be reintroduced into the new campus. Therefore, our aims of this research are to identify and record the wide diversity of flora in the College, memorialising the beauty and biodiversity of the original campus. To achieve our aims, we sampled, photographed and identified the plant species around the TJC campus.

Fig. 1. Satellite Map of TJC (Google, 2022).

MATERIAL & METHODS

All trees and shrubs currently found in TJC's campus were located and identified through floristic surveys. From these surveys conducted between 3 and 16 June 2022, a comprehensive list and map of all plants found on campus were made. Every individual was geo-referenced in the campus during field work. Photographs were taken with a Sony camera SLT-A65V and lenses with focal lengths of 18–80 mm and 75–300 mm.

The plants were identified by referring to the 'Flora Fauna Web' of the National Parks Board, Singapore (Flora Fauna Web, 2022) and Ho et al. (1987). The national conservation statuses of the plant species were classified according to Lindsay et al. (2022) and using the definitions therein. 'Cultivated Only' non-native species were checked against Chong et al. (2009). The trees and shrubs were mapped onto the satellite image of the College by visually pinpointing locations on a map, which were then transferred onto Google Earth Pro (Windows) version 7.3 (Google, 2022).

RESULTS & DISCUSSION

There are 104 plant species, which belong to 43 different families, distributed across the campus, which were planted throughout the campus' construction and subsequent expansions. Of these species, 21 are native, 81 are non-native and two are cryptogenic. Among the native plant species, one is Presumed Nationally Extinct, five are Critically Endangered, one is Endangered, five are Vulnerable, eight are Least Concern and one is Data Deficient. Among the non-native plant species, 14 are Naturalised, 15 are Casual, 47 are Cultivated only and five are Not Assessed (Table 1).

Table 1. Number and percentage of species in each national conservation status.

Origin	National Conservation Status	Number of species	Percentage (%) of species
Native		**21**	**20.19**
	Extinct	0	0.00
	Presumed Nationally Extinct	1	0.96
	Critically Endangered	5	4.81
	Endangered	1	0.96
	Vulnerable	5	4.81
	Least Concern	8	7.69
	Data Deficient	1	0.96
	Not Assessed	0	0.00
Non-native		**81**	**77.88**
	Naturalised	14	13.46
	Casual	15	14.42
	Cultivated only	47	45.19
	Not Assessed	5	4.81
Cryptogenic		**2**	**1.92**
	Total number of species	**104**	
	Total number of families	**43**	

Numerous native plant species in Singapore are now categorised as nationally threatened (Vulnerable, Endangered or Critically Endangered) because of habitat loss, the lack of available land and the demands of urbanisation for economic development. The majority of these nationally threatened plant species are more likely to be found in remnant primary forest patches such as the Singapore Botanic Gardens' Rainforest and in the Nature Reserves (Bukit Timah Nature Reserve, Central Catchment Nature Reserve, Labrador Nature Reserve and Sungei Buloh Wetland Reserve), which have the highest levels of plant diversity in Singapore (Lim et al., 2019). In TJC's campus, however, 12 nationally threatened species were discovered (Fig. 2), which were added throughout its numerous expansions. This includes *Cyrtostachys renda* Blume (Fig. 3), a nationally Critically Endangered species; *Ardisia elliptica* Thunb. (Fig. 4), a nationally Endangered species and *Ficus vasculosa* Wall. ex Miq. (Fig. 5), a nationally Vulnerable species, which were found on campus serving ornamental purposes, incentivising the preservation of these nationally threatened species. Being nationally threatened with a low number of individuals known in the wild in Singapore, these plants are likely to have been planted from non-native stock.

Attention and effort should be directed towards ensuring the survival of these nationally threatened species by preserving them, especially during campus renovations, because of their importance to Singapore's current ecosystem. Transplantation may be a viable option for achieving this goal (Fahselt, 2007). This may be accomplished by enlisting a group of gardeners and construction workers to conserve and care for these species at the old campus throughout its renovation, ensuring that the construction accommodates them, thereby preserving them. Gardeners can then monitor the health of these plants and ensure that they are well integrated into their new environment, being conserved and protected.

Fig. 2. Map showing vegetated areas in TJC Campus. The pins indicate the positions of nationally threatened species, including Critically Endangered, Endangered and Vulnerable species.

Fig. 3. *Cyrtostachys renda*, a nationally Critically Endangered species in TJC's Campus, found near the canteen. (Photograph by Chai Ziqi).

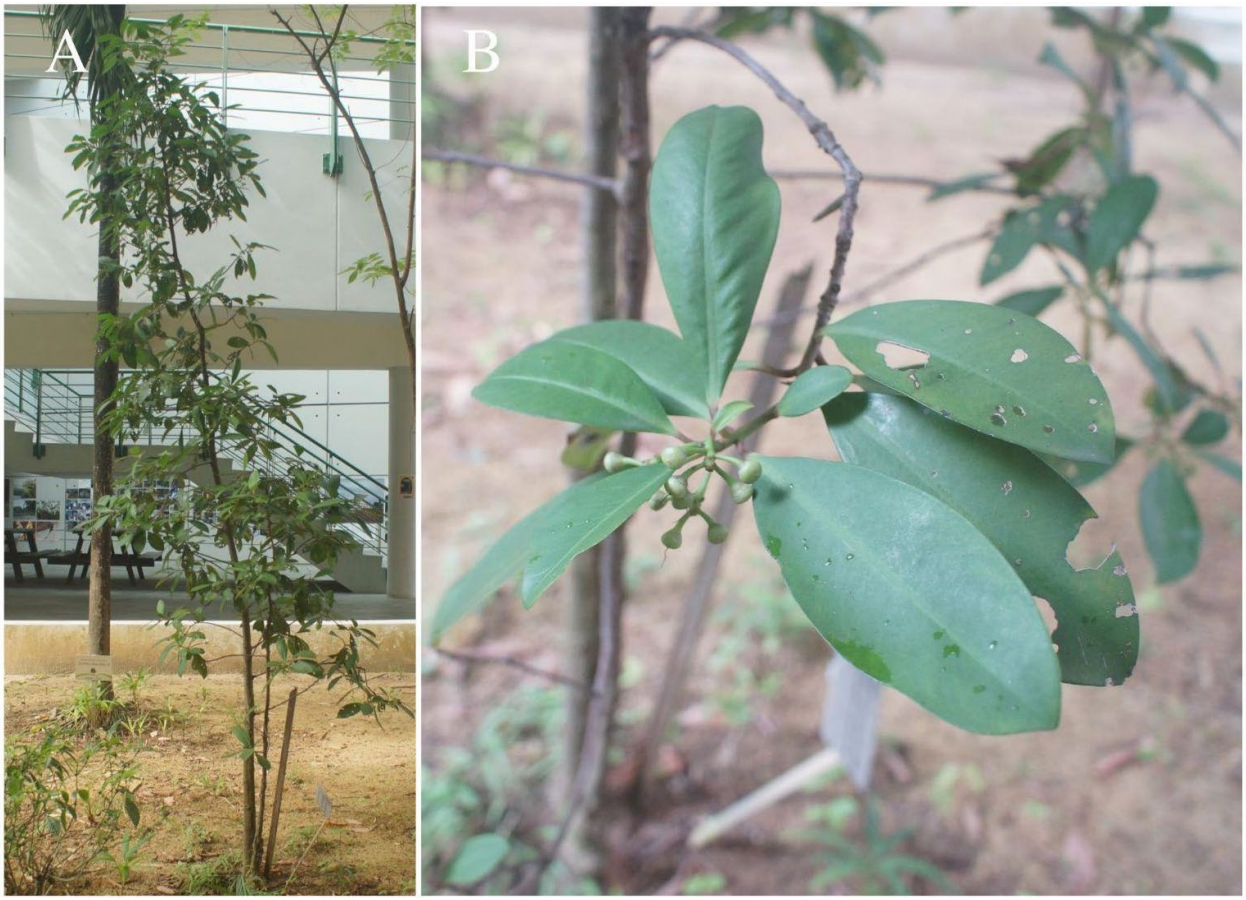

Fig. 4. *Ardisia elliptica*, a nationally Endangered plant species, found outside the auditorium. A, a small tree; B, the leaves are elliptical, with flowers growing in stalked clusters. (Photograph by Chai Ziqi).

Fig. 5. *Ficus vasculosa*, a nationally Vulnerable plant species found near the Chinese Language Elective Programme (CLEP) block. (Photograph by Chai Ziqi).

Non-native plant species introduced to Singapore serve important ornamental purposes in addition to their contribution to the current Singapore's ecosystem. These ornamental plant species brighten the school campus, making it a pleasant place for students and staff. There are several examples of these plant species listed below, including *Caesalpinia pulcherrima* (L.) Sw. (Fig. 6), ***Bougainvillea glabra*** Choisy (Fig. 7), *Phanera kockiana* (Korth.) Benth. var. *kockiana*. (Fig. 8), *Mussaenda erythrophylla* Schumach. & Thonn. (Fig. 9), *Mussaenda philippica* A.Rich. (Fig. 10), *Ruellia simplex* C.Wright (Fig. 11) and *Thunbergia laurifolia* Lindl. (Fig. 12). These non-native species flower with attractive colours and are scattered around the campus, adding to its beauty.

In addition to being ornamental, they also serve as an additional food source for pollinators such as butterflies or bees, especially when native species are not flowering at the time. The flowers of *Caesalpinia pulcherrima* secrete nectar, providing food for butterflies. As a result, non-native plant species can sometimes benefit our local biodiversity through plant-pollinator interactions (Katumo et al., 2022).

Fig. 6. *Caesalpinia pulcherrima*, an ornamental non-native plant species found in the TJC Campus. The flowers are usually bright orange, yellow and red, borne in terminal clusters and have long stamens and pistils. (Photographs by Chai Ziqi).

Fig. 7. *Bougainvillea glabra* is a cultivated, non-native plant species serving an ornamental purpose. A, bright purple, triangular bracts form showy 'blossoms'; B, the true flowers are white, tubular and inconspicuous. Flowering is continuous along the entire branch. (Photographs by Chai Ziqi).

Fig. 8. *Phanera kockiana* is a cultivated, non-native plant species serving an ornamental purpose. The bisexual flowers are borne in clusters. Each flower has five large yellow or reddish-orange petals. (Photographs by Chai Ziqi).

Fig. 9. *Mussaenda erythrophylla*, a cultivated non-native plant species serving as an ornamental. It has small, orange to yellow flowers that are tubular and star-shaped, arranged in small clusters known as corymbs. Their bracts, which are modified leaves, are elliptic to ovate, with those in the corymbs being red-coloured. (Photographs by Chai Ziqi).

Fig. 10. *Mussaenda philippica*, a cultivated non-native species serving an ornamental purpose. It has small, orange to yellow flowers that are tubular and star-shaped. They are arranged in small clusters known as corymbs with large, white, egg-shaped sepals. Their bracts, which are modified leaves, are elliptic to egg-shaped and white-coloured. (Photographs by Chai Ziqi).

Fig. 11. *Ruellia simplex*, a naturalised non-native species serving an ornamental purpose. The tubular flowers are light purple and five-lobed. The petals are approximately round to oblong with irregular edges and a longitudinal groove in the middle. (Photographs by Chai Ziqi).

Fig. 12. *Thunbergia laurifolia* is commonly known as the blue trumpet vine or laurel clock vine. The flowers are attractive with pale purplish-blue petals and a yellow throat. (Photographs by Chai Ziqi).

Among the non-native species, there are also 13 edible plant species (Fig. 13). These include *Etlingera elatior* (Jack) R.M.Sm., which produces edible flowers (Fig. 14); *Citrus hystrix* DC., which produces the lime fruit (Fig. 15) and *Artocarpus heterophyllus* Lam., the jackfruit (Fig. 16). These edible plants can also serve educational purposes and be introduced to students as alternative food plants that they may not previously have known about. For example, *Etlingera elatior* (Fig. 14) has a short bloom duration which only lasts for a couple of weeks, with their flowers being commonly used in well-known local dishes such as laksa and rojak to enhance their taste (Flora Fauna Web, 2022).

Fig. 13. All edible species spread out in TJC Campus, mapped on Google Maps.

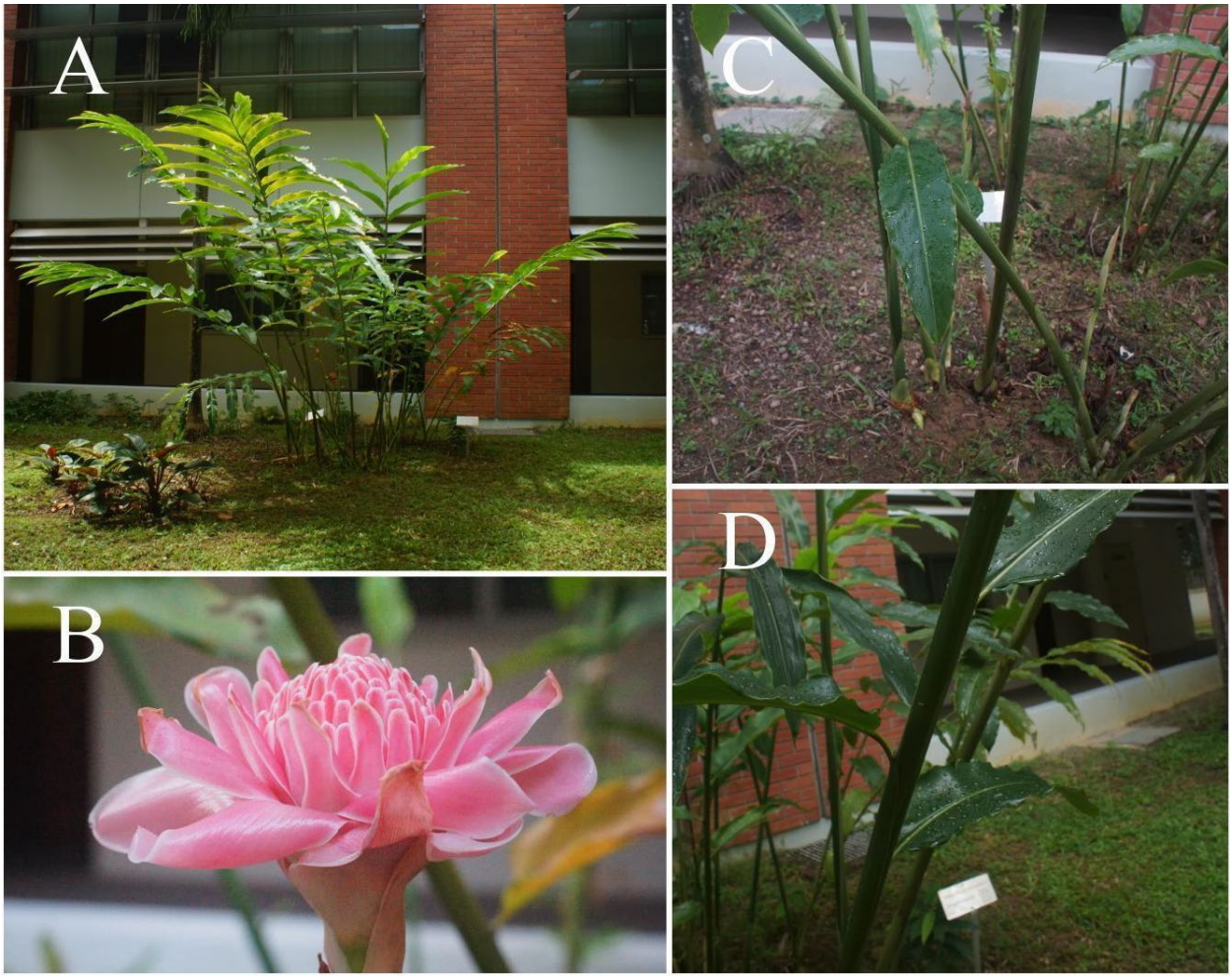

Fig. 14. *Etlingera elatior*, which produces edible flowers. A, plant located outside auditorium; B, open flower; C, close up of a leaf; D, close up of the stem (Photographs by Chai Ziqi).

Fig. 15. *Citrus hystrix* DC., which is commonly known as Kaffir lime. A, tree found near the PE block.; B, a leafy branch; C, an edible fruit (Photographs by Chai Ziqi).

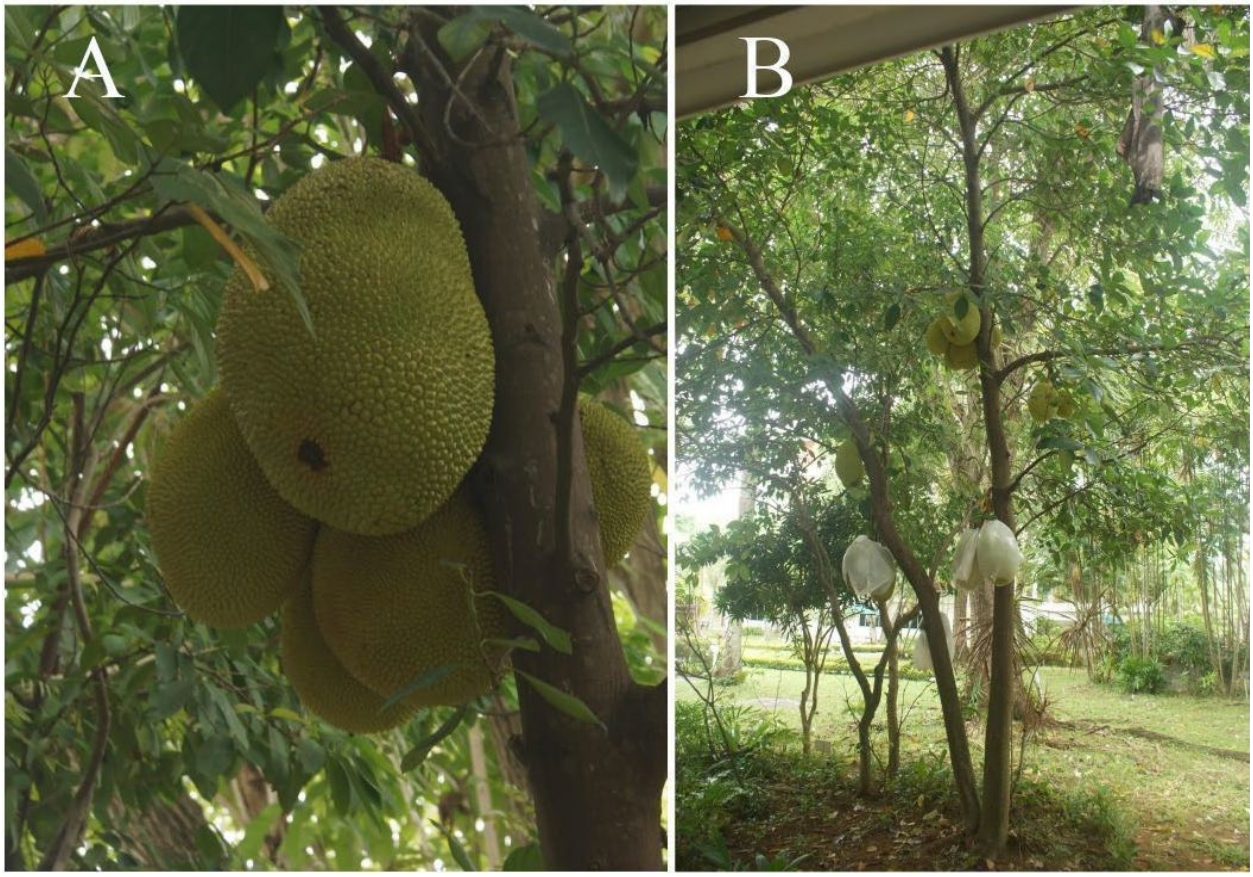

Fig. 16. *Artocarpus heterophyllus*, which produces the jackfruit. A, edible fruits; B, plants found near the science labs (Photographs by Chai Ziqi).

Additionally, there are 50 big trees, consisting of six different species, whose crowns can be clearly seen on Google Maps (Fig. 17). These species are: *Cerbera odollam* Gaertn. (Fig. 18), *Mangifera indica* L. (Fig. 19), *Pterocarpus indicus* Willd. (Fig. 20), *Samanea saman* (Jacq.) Merr. (Fig. 21), *Andira inermis* (W.Wright) DC. (Fig. 22), *Tabebuia rosea* (Bertol.) DC. (Fig. 23) and *Bauhinia* × *blakeana* Dunn. (Fig. 24).

With the many large trees on our campus, it is important to preserve them as precious heritage trees. Large old trees are often recognised for influencing the ecosystem in various ways. These include having large influences on hydrological regimes, nutrient cycles and numerous critical ecosystem processes (Lindenmayer & Laurance, 2016). Their big trunks are also suitable for climbers and epiphytes, as seen in *Asplenium nidus* attaching to the big trunk of *Tabebuia rosea* (Fig. 23). These trees also provide many habitats for a variety of animals, such as nesting sites for birds, with their fruits being sources of food for these residing animals as well (Stagoll et al., 2012). Hence, it is vital to protect and recognise these large trees within our campus by not uprooting them and taking measures not to damage their roots during construction.

Furthermore, large trees are important to Singapore's natural heritage because they serve as important green landmarks for our City in Nature. They contribute to the area's sense of permanence and identity. More importantly, they provide significant shade and cool the air, providing a respite from the sweltering heat and blistering sunlight. A *Cerbera odollam* tree near the school café has been growing on the campus for more than 36 years, as reported in the 'Flora of Temasek' (Ho et al., 1987). Furthermore, some large trees may have additional uses, for example, *Cerbera odollam* seeds have the potential to be used as a biopesticide, insect repellent and rat poison. Its bark, leaves and seed oil are all used in folk medicine (Saxena et al., 2022). As a result, protecting such trees with multifaceted uses is critical to ensure that they can continue to better our environment and contribute to the College's ambience.

Fig. 17. Big trees with visible crowns on TJC's campus, plotted on Google Maps.

Fig. 18. *Cerbera odollam*, commonly known as the pong pong. A, flower with five white coloured petals; B, fruit, known to be poisonous; C, tree found near the café. (Photographs by Chai Ziqi).

Fig. 19. *Mangifera indica*, commonly known as the mango. A, the fruits which are edible; B, the deep green, oblong-elliptic to lanceolate leaves with entire and slightly undulate margins and yellow and quite distinct midrib. The leaves also tend to droop downwards slightly. C, tree, found near the flagpoles. (Photographs by Chai Ziqi).

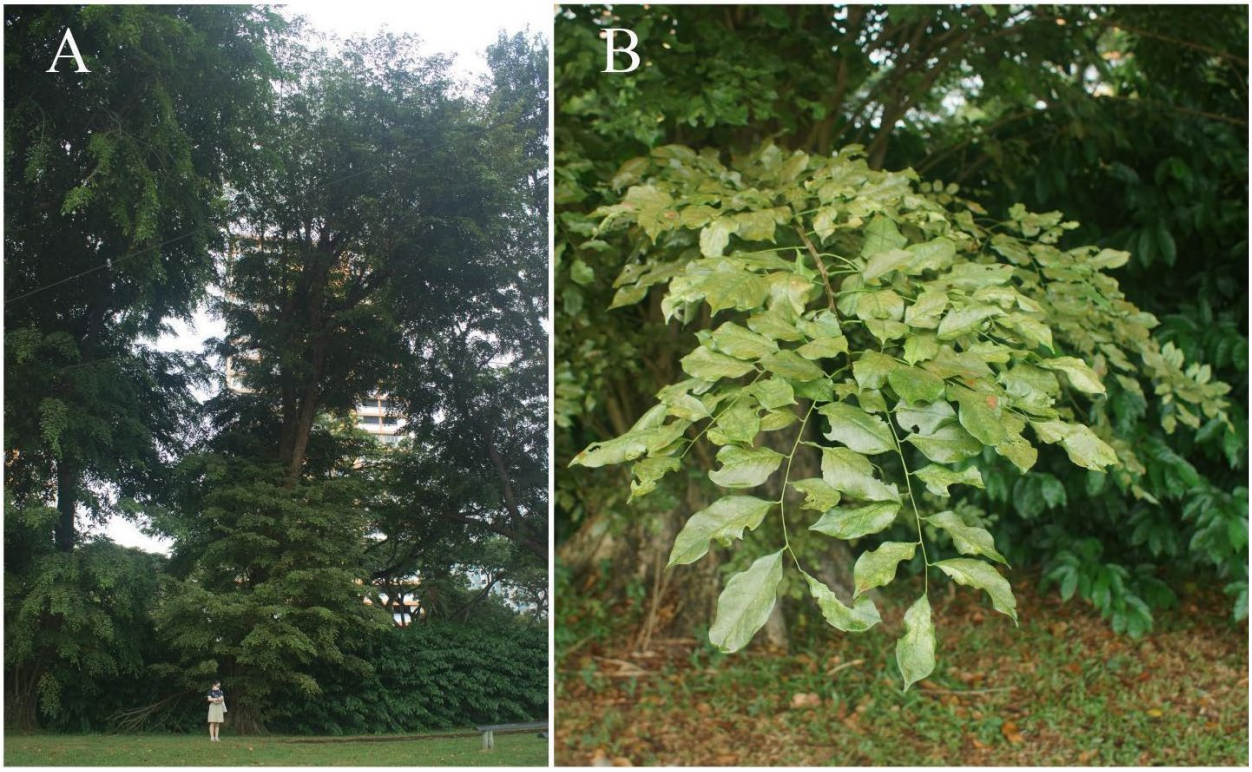

Fig. 20. *Pterocarpus indicus*, commonly known as the angsana. A, tree near the front gate; B, leaves are arranged alternately with broadly ovate to elliptic leaflets. (Photographs by Chai Ziqi).

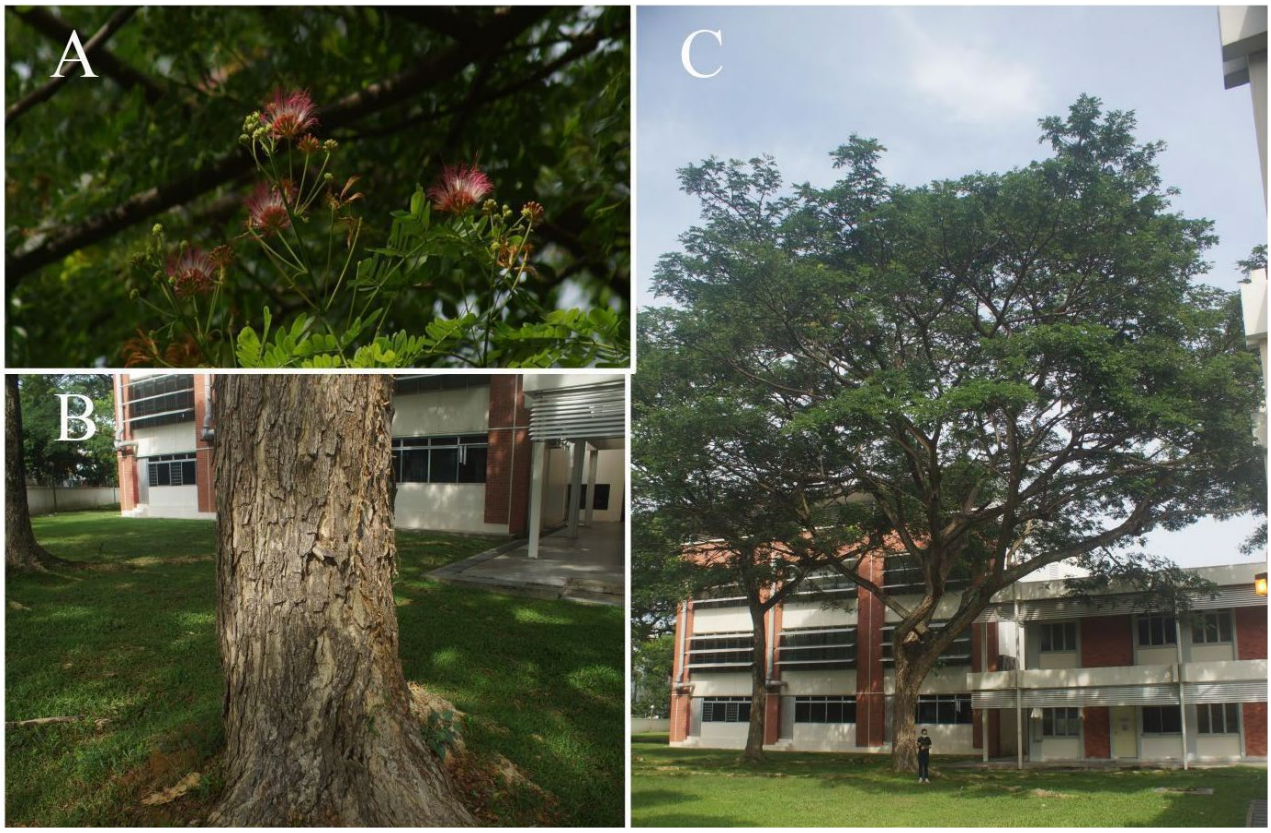

Fig. 21. *Samanea saman*, commonly known as the rain tree. A, the flowers, which are powderpuff-like clusters with numerous filamentous stamens, pink above and white below, are attractive to bees; B, dark brown bark; C, tree found behind the staff rooms. (Photographs by Chai Ziqi).

Fig. 22. *Andira inermis*, commonly known as the cabbage tree. A, the flowers are small, bell-shaped and dark pink to purplish-red, with large, branched inflorescences known as panicles; B, the leaves are pinnately compound with dark green, shiny leaflets; C, tree found behind the staff rooms. (Photographs by Chai Ziqi).

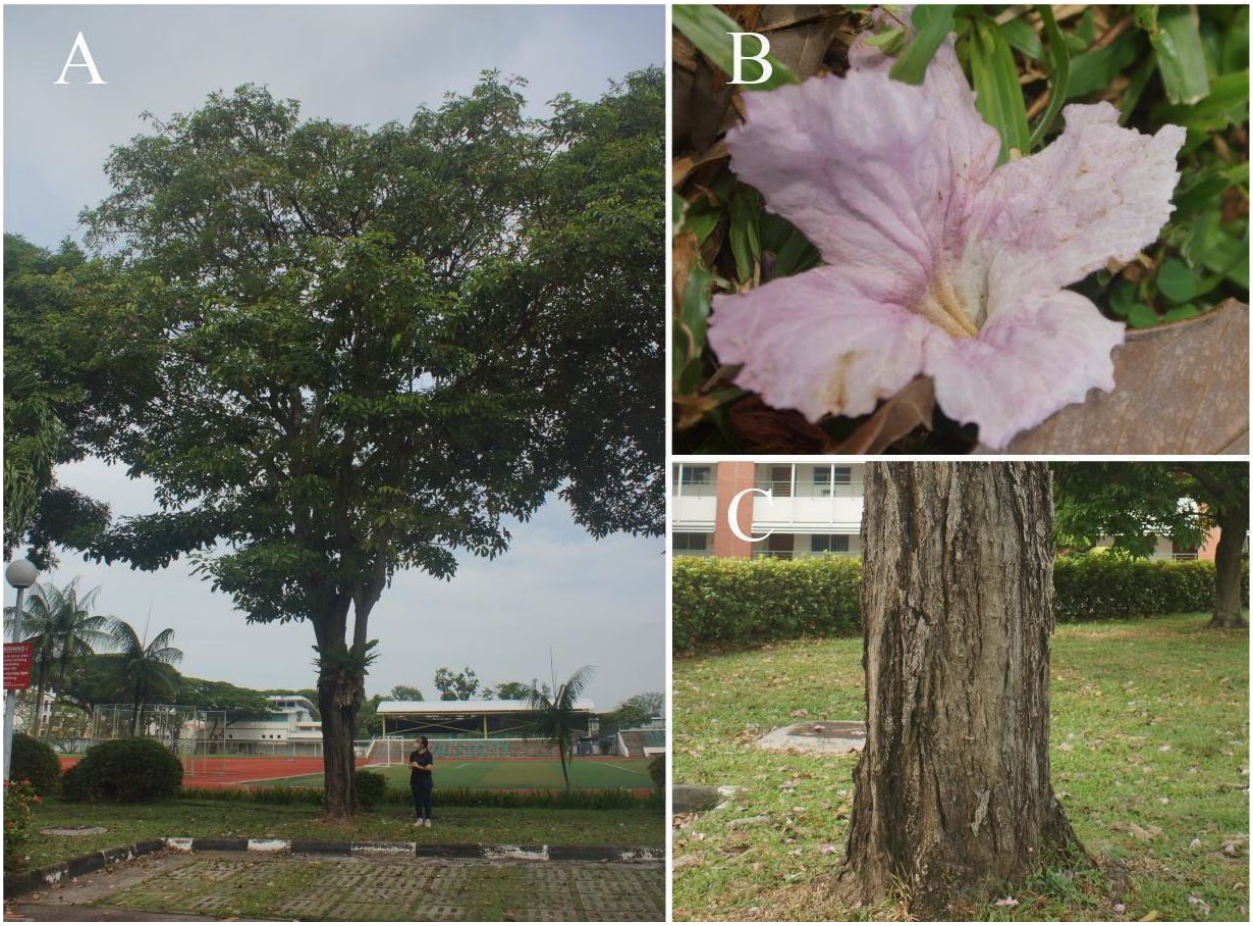

Fig. 23. *Tabebuia rosea*, commonly known as the trumpet tree. A, tree found beside the running track; B, a trumpet-shaped flower with five petals; C, trunk with fissured bark. (Photographs by Chai Ziqi).

Fig. 24. *Bauhinia* × *blakeana*, commonly known as Blake's bauhinia. A, the flowers have deep pink petals and 5–6 stamens; B, the leaves are light green and bi-lobed resembling butterfly wings; C, tree found beside the café (Photographs by Chai Ziqi).

CONCLUSIONS

This paper has effectively encapsulated and recorded all significant flora on TJC's campus. This is one of the first, if not the first, papers documenting the plant diversity within a pre-university campus. We have documented the rich biodiversity that TJC's campus has and other pre-university schools could do the same to highlight the beauty and diversity of the flora within their grounds.

This paper also serves as a second record of the biodiversity within the 'Botanic Gardens of the East', 35 years on from the initial 'Flora of Temasek' published in 1987. Furthermore, it is a testament to the many big trees and plant diversity that this old campus holds in the face of its impending demolition and renovation, encouraging more conservation measures to be implemented to prevent their loss.

ACKNOWLEDGEMENTS

We thank Ming Kai Tan of the National University of Singapore (NUS) for guiding us throughout the entire research and writing process. Additionally, we acknowledge the help from Louise Neo of the National Parks Board in verifying the identities of several plant species. We are deeply grateful to Jismyl Lam and Aileen Lim for providing us the opportunity to conduct this research project.

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APPENDIX I

All vascular plants present on TJC's campus, arranged alphabetically by family.

S/N.	Species	Common Name	Native Status	National Conservation Status	Location (for species with individuals in multiple locations, the location with the most number of individuals was noted)
	ACANTHACEAE				
1	*Asystasia gangetica* (L.) T.Anderson	Chinese violet	Non-native	Naturalised	Car park near Integrated Program (IP) block
2	*Ruellia simplex* C.Wright	Mexican bluebells	Non-native	Cultivated only	Beside driveway
3	*Thunbergia laurifolia* Lindl.	Laurel clock vine	Non-native	Casual	Between canteen & Lecture Theatre (LT) 1
	AMARANTHACEAE				
4	*Alternanthera ficoidea* (L.) Sm.	Parrot leaf	Non-native	Naturalised	Admin block balcony
5	*Clivia gardenii* Hook.	Major Garden's clivia	Non-native	Unassessed	Near Arts block
6	*Hymenocallis speciosa* (Lf. ex Salisb.) Salisb.	Spider lily	Non-native	Cultivated only	Beside track
	ANACARDIACEAE				
7	*Mangifera indica* L.	Mango	Non-native	Casual	Driveway near back gate
	ANNONACEAE				
8	*Monoon longifolium* (Sonn.) B.Xue & R.M.K.Saunders	Weeping mast tree	Non-native	Cultivated only	The Scope
	APOCYNACEAE				
9	*Allamanda oenotherifolia* Pohl	Bush Allamanda	Non-native	Cultivated only	Driveway near back gate
10	*Asclepias tuberosa* L.	Butterfly weed	Non-native	Unassessed	Behind Student's Council (SC) room
11	*Cerbera odollam* Gaertn.	Pong pong	Native	Vulnerable	Near Music block
12	*Plumeria* 'Jean Moragne'	Frangipani	Non-native	Cultivated only	Beside track/ driveway
13	*Tabernaemontana divaricata* L.	Double flowered crepe jasmine	Non-native	Cultivated only	Along walkway between LT1 and Research@East Zone (R@EZ)

S/N.	Species	Common Name	Native Status	National Conservation Status	Location (for species with individuals in multiple locations, the location with the most number of individuals was noted)
14	*Wrightia religiosa* (Teijsm. & Binn.) Kurz	Water jasmine	Non-native	Casual	Car park near front gate
	ARACEAE				
15	*Epipremnum pinnatum* (L.) Engl.	Dragon-tail plant	Non-native	Naturalised	Driveway near back gate
	ARALIACEAE				
16	*Polyscias fruticosa* (L.) Harms	Parsley panax	Non-native	Cultivated only	Along walkway between LT1 and R@EZ
	ARAUCARIACEAE				
17	*Araucaria columnaris* (G.Forst.) Hook.	Cook pine	Non-native	Cultivated only	Between Arts block and IP labs
	ARECACEAE				
18	*Actinorhytis calapparia* (Blume) H.Wendl. & Drude	Calappa palm	Non-native	Cultivated only	Beside track/ driveway
19	*Areca catechu* L.	Areca	Non-native	Casual	The Scope
20	*Arenga engleri* Becc.	Dwarf sugar palm	Non-native	Cultivated only	Near LT3/4
21	*Caryota mitis* Lour.	Fishtail palm	Native	Least concern	Beside ParenTeen Centre
22	*Cocos nucifera* L.	Coconut	Non-native	Naturalised	Car park (near front gate)
23	*Cyrtostachys renda* Blume	Lipstick palm	Native	Critically endangered	Near Music block
24	*Dypsis decaryi* (Jum.) Beentje & J.Dransf.	Triangle palm	Non-native	Cultivated only	Near flagpole/canteen
25	*Dypsis lutescens* (H.Wendl.) Beentje & J.Dransf.	Yellow cane palm	Non-native	Cultivated only	Behind Chinese Language Elective Programme (CLEP) block
26	*Elaeis oleifera* (Kunth) Cortés	American oil palm	Non-native	Unassessed	Around LT1
27	*Euterpe oleracea* Mart.	Cabbage palm	Non-native	Cultivated only	Car park near IP block
28	*Licuala spinosa* Thunb.	Mangrove fan palm	Native	Vulnerable	Near auditorium
29	*Livistona chinensis* (Jacq.) R.Br. ex Mart.	Chinese fan Palm	Non-native	Cultivated only	In front of Wee Heng Tin Seminar Room (WHTSR)

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30	*Nypa fruticans* Wurmb	Nipah palm	Native	Vulnerable	Beside WHTSR
31	*Ptychosperma macarthurii* (H.Wendl. ex anon.) H.Wendl. ex Hook.f.	Macarthur palm	Non-native	Naturalised	Pick up/drop off point (Arts Hub)
32	*Rhapis excelsa* (Thunb.) A.Henry ex Rehder	Broadleaf lady palm	Non-native	Cultivated only	In front of WHTSR
33	*Roystonea oleracea* (Jacq.) O.F.Cook	Carribean royal palm	Non-native	Cultivated only	Between café & admin block
34	*Saribus rotundifolius* (Lam.) Blume	Fan palm	Non-native	Casual	Near café
35	*Wodyetia bifurcata* A.K.Irvine	Foxtail palm	Non-native	Cultivated only	Around fountain
	ASPARAGACEAE				
36	*Agave angustifolia* Haw.	Narrow century plant	Non-native	Cultivated only	Beside canteen
37	*Dracaena reflexa* Lam.	Rainbow tree	Non-native	Cultivated only	Beside WHTSR
38	*Furcraea foetida* (L.) Haw.	Giant false agave	Non-native	Cultivated only	Near auditorium
	BIGNONIACEAE				
39	*Tabebuia rosea* (Bertol.) DC.	Trumpet Tree	Non-native	Casual	Beside track
	BLECHNACEAE				
40	*Stenochlaena palustris* (Burm.f.) Bedd.	Climbing Fern	Native	Least concern	Beside WHTSR
	BORAGINACEAE				
41	*Ehretia microphylla* Lam.	Fukien Tea Tree	Non-native	Naturalised	Driveway (near back gate)
	COMBRETACEAE				
42	*Terminalia mantaly* H.Perrier	Umbrella tree	Non-native	Unassessed	Between canteen and LT1
	COSTACEAE				
43	*Costus woodsonii* Maas	Red ginger	Non-native	Cultivated only	Beside café

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	CUPRESSACEAE				
44	*Juniperus chinensis* L.	Chinese juniper	Non-native	Cultivated only	Car park near IP block
	DAVALLIACEAE				
45	*Davallia solida* (G.Forst.) Sw.	Hare's foot fern	Native	Vulnerable	Beside WHTSR
	DENNSTAEDTIACEAE				
46	*Davallia denticulata*	Rabbit foot's fern	Native	Least concern	Near CLEP Block
	DILLENIACEAE				
47	*Tetracera indica* (Christm. & Panz.) Merr.	Mempelas	Native	Least concern	The Scope
	DIPTEROCARPACEAE				
48	*Shorea* sp.				Around LT1
	EUPHORBIACEAE				
49	*Euphorbia pulcherrima* Willd. ex Klotzsch	Poinsettia	Non-native	Cultivated only	Around flagpole
50	*Euphorbia tirucalli*.L	Pencil cactus	Non-native	Cultivated only	Driveway near back gate
51	*Excoecaria cochinchinensis* Lour.	Chinese Croton	Non-native	Cultivated only	Along walkway between LT1 and R@EZ
52	*Jatropha integerrima* Jacq.	Shanghai beauty	Non-native	Cultivated only	Car park/ track (near front gate)
	FABACEAE				
53	*Andira inermis* (W.Wright) DC.	European horse-chestnut	Non-native	Casual	Driveway near back gate
54	*Baphia nitida* Lodd.	Pin-flower tree	Non-native	Casual	Everywhere (fencing)
55	*Bauhinia* × *blakeana* Dunn	Blake's bauhinia	Non-native	Cultivated only	Beside café
56	*Caesalpinia pulcherrima* (L.) Sw.	Peacock flowers	Non-native	Cultivated only	Driveway near back gate

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57	*Mimosa pudica* L.	Shameplant	Non-native	Naturalised	Behind CLEP block
58	*Phanera kockiana* (Korth.) Benth. var. kockiana	Kock's bauhinia	Non-native	Cultivated only	Between canteen and LT1
59	*Pterocarpus indicus* Willd.	Angsana tree	Non-native	Casual	Beside track, car park
60	*Samanea saman* (Jacq.) Merr.	Rain Tree	Non-native	Casual	Car park (near front gate)
	GNETACEAE				
61	*Gnetum gnemon* L. var. *gnemon*	Belinjau	Native	Critically endangered	Behind CLEP block
	LAMIACEAE				
62	*Vitex trifolia* L.	Chaste tree	Non-native	Critically endfangered	Behind TJ logo (driveway)
	LORANTHACEAE				
63	*Dendrophthoe pentandra* (L.) Miq.	Mistletoe	Native	Least concern	Driveway (near back gate)
	LOWIACEAE				
64	*Orchidantha maxillarioides* (Ridl.) K.Schum.	Malayan sword	Non-native	Cultivated only	Under LT1 (beside Temasek Lounge)
	MALVACEAE				
65	*Hibiscus rosa-sinensis* L. 'Cooperi'	Shoeblack plant	Non-native	Casual	Driveway near back gate
	MARANTACEAE				
66	*Donax canniformis* (G.Forst.) K.Schum.	Common donax	Native	Critically Endangered	Around LT2
	MORACEAE				
67	*Artocarpus heterophyllus* Lam.	Jackfruit	Non-native	Casual	Driveway (near back gate)
68	*Ficus benjamina* L.	Weeping fig	Cryptogenic	Cryptogenic	Pick up/ drop off point (Arts Hub)
69	*Ficus elastica* Roxb. ex Hornem.	Rubber fig	Non-native	Casual	Car park near front gate

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70	*Ficus lyrata* Warb.	Fiddle leaf fig	Non-native	Cultivated only	Beside café
71	*Ficus microcarpa* L.f.	Indian laurel fig	Non native	Cultivated only	Near LT3/4
72	*Ficus religiosa* L.	Buddha tree	Non-native	Naturalised	Container block
73	*Ficus retusa* L.	Indian laurel fig	Native	Least concern	Near LT3/4
74	*Ficus vasculosa* Wall. ex Miq.	White fig	Native	Vulnerable	Driveway near back gate
75	*Morus alba* L.	White mulberry	Non-native	Cultivated only	Driveway near back gate
	MYRTACEAE				
76	*Psidium guajava* L.	Dwarf guava	Non-native	Casual	Near LT3/4
77	*Syzygium myrtifolium* (Roxb.) Walp.	Kelat Paya	Native	Critically endangered	Driveway near back gate
78	*Syzygium polyanthum* (Wight) Walp.	Indonesian Bayleaf	Native	Least concern	Near LT3/4
79	*Syzygium* sp.				Near LT3/4
80	*Syzygium australe* (J.C.Wendl. ex Link) B.Hyland	Australian brush-cherry	Non-native	Cultivated only	Beside walkway/driveway
	NEPHROLEPIDACEAE				
81	*Nephrolepis exaltata* (L.) Schott	Boston fern	Native	Data deficient	Near café
	NYCTAGINACEAE				
82	*Bougainvillea glabra* Choisy	Paper flower	Non-native	Cultivated only	Beside track
	PASSIFLORACEAE				
83	*Passiflora foetida* L.	Running pop	Non-native	Naturalised	Near squash court
84	*Passiflora suberosa* L.	Corky Passionflower	Non-native	Naturalised	Near squash court
	PHYLLANTHACEAE				
85	*Bridelia tomentosa* Blume	Kenidai	Native	Least concern	Around LT1
	POACEAE				

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86	*Arundinaria fortunei* (Van Houtte) Nakai	Dwarf bamboo	Non-native	Cultivated only	Beside WHTSR
87	*Bambusa lako* E.A.Widjaja	Timor black bamboo	Non-native	Cultivated only	Beside IP labs
88	*Bambusa multiplex* (Lour.) Raeusch. ex Schult.f.	Hedge bamboo	Non-native	Cultivated only	Beside café
89	*Bambusa vulgaris* Schrad. ex J.C.Wendl.	Ivory bamboo	Non-native	Cultivated only	Beside container block
	PRIMULACEAE				
90	*Ardisia elliptica* Thunb.	Seashore ardisia	Native	Endangered	Around LT1
	RUBIACEAE				
91	*Ixora coccinea* L.	Ixora 'siam ribbon'	Native	Presumed nationally extinct	The Scope
92	*Mussaenda erythrophylla* Schumach. & Thonn.	Ashanti blood	Non-native	Cultivated only	Around flagpole
93	*Mussaenda philippica* A.Rich.	White mussaenda	Non-native	Cultivated only	Around flagpole
	RUTACEAE				
94	*Citrus hystrix* DC.	Kaffir lime	Non-native	Casual	Driveway near back gate
95	*Citrus limon* (L.) Burm.f.	Lemon	Non-native	Casual	Driveway near back gate
96	*Citrus microcarpa* (Bunge) Wijnands	Golden lime	Non-native	Cultivated only	Beside track/ driveway
97	*Murraya koenigii* (L.) Spreng.	Curry leaf tree	Non-native	Casual	Driveway (near back gate)
	SAPOTACEAE				
98	*Manilkara zapota* (L.) P.Royen	Chiku	Non-native	Cultivated only	Along walkway between LT1 and R@EZ
	SCROPHULARIACEAE				
99	*Russelia equisetiformis* Schltdl. & Cham.	Firecracker plant	Non-native	Cultivated only	Admin block balcony
	TURNERACEAE				

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100	*Turnera ulmifolia* L.	Holy rose	Non-native	Naturalised	Driveway near back gate
	VERBENACEAE				
101	*Lantana camara* L.	Lantana	Non-native	Naturalised	Around fountain
	ZINGIBERACEAE				
102	*Etlingera elatior* (Jack) R.M.Sm.	Torch-ginger	Cryptogenic	Cryptogenic	In front of staff rooms