

A lush green forest scene with a stone archway containing a terrarium. The archway is made of dark, mossy stones and is surrounded by dense foliage, including ferns and broad-leafed plants. Inside the archway, a small terrarium is built on a bed of moss and contains several green plants and a piece of driftwood. The overall atmosphere is vibrant and natural.

IT'S IN  
**OUR NATURE**

ANNUAL REPORT 2024-2025





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## IT'S IN OUR NATURE

This year, we celebrate the milestones in Singapore's greening journey and the enduring spirit of community that makes our vision of a City in Nature possible. Building on the legacy of 60 years of greening since the Garden City vision was first started by founding Prime Minister Lee Kuan Yew, 2024 stands as a testament to the power of collective action in shaping a greener, more sustainable Singapore.

The completion of rejuvenated spaces bears the creative imprint of residents, students, and volunteers who have helped shape their design. Across neighbourhoods, growing heartland programmes and community gardens demonstrate how nature can flourish when residents embrace stewardship of the environment. Friends and partners of NParks have been highlighted in nine features throughout the report, and we encourage you to learn more about their stories.

As we look ahead, our greatest resource remains unchanged: the collective will of those who believe a greener future is built not just for the people, but with them.



## CHAIRMAN'S MESSAGE

We have known for some time that being amidst nature is good for us. Studies published in international journals have shown the positive links between meaningful interaction with urban nature and improved physical and mental well-being. These insights inform our strategies at NParks, guiding science-backed design for a healthier, more resilient society.

### New Programmes That Benefit Residents

The Parks for Health Framework was launched in 2025 to enhance residents' access to greenery so that everyone can better enjoy its restorative qualities. Through active programming and partnerships with healthcare institutions and relevant agencies, more people can look forward to immersing themselves in therapeutic landscapes, gardening or activities that support physical and emotional well-being. This is why NParks continues to build and open therapeutic gardens — this year at Punggol, West Coast, and Pek Kio — for everyone to enjoy.

At the heart of NParks' work lies a strong partnership with the community. Together, we seek to develop and implement initiatives that enhance public well-being, with residents' needs and interests guiding our shared journey towards becoming a City in Nature. This commitment to co-creation is exemplified in the rejuvenated Chinese and Japanese Gardens at Jurong Lake Gardens, reopened in September 2024. As our first national garden in the heartlands, the gardens reflect the valuable inputs from many rounds of public engagement — from water-sensitive designs in the Water Lily Garden to the collaborative Floral Garden projects developed with students and volunteers.

This same participatory approach extends to other greening efforts across the island. Bidadari and Tampines Boulevard Parks opened after residents' inputs were incorporated into their design. And thanks to the strong support of our community, we have now planted over 760,000 trees in our OneMillionTrees movement. We have also integrated greenery into urban areas by developing over 200 ha of skyrise greenery, bringing us another step towards transforming Singapore into a greener and more sustainable home for all.

### Bolstering Conservation, Elevating Industry

This past year, we opened the enhanced Sisters' Islands Marine Park, and launched the second phase of the Comprehensive Marine Biodiversity Survey — the most extensive marine biodiversity survey conducted in Singapore. New areas and biomes will be surveyed to complement earlier findings and provide a clearer picture of Singapore's marine biodiversity. The Survey will also employ novel testing techniques and technologies such as seabed corers and mobile DNA labs for reef monitoring by researchers, staff and students, building up local expertise in marine conservation. These efforts reflect our commitment to marine conservation, uplifting local expertise and fostering greater public appreciation for marine life.

As we adapt to and mitigate the challenges brought about by climate change, it is essential that we also raise professional excellence across partnering industries and institutions. The Landscape Sector Transformation Plan represents a comprehensive approach to elevating professional standards, while strategic partnerships with educational institutions

“ At the heart of NParks' work lies a strong partnership with the community. Together, we seek to develop and implement initiatives that enhance public well-being, with residents' needs and interests guiding our shared journey towards becoming a City in Nature.

equip our youth with expertise that injects fresh energy into the industry.

In the veterinary and animal sector, we are enhancing legislation by establishing Singapore's first Veterinary Council to enhance veterinary professionalism, and raising animal welfare standards for shelters, trainers and pet businesses. In the reporting year, NParks organised the inaugural CITES Global Youth Summit, bringing together young conservation leaders from around the world in substantive dialogue and capacity building for the future of wildlife conservation. We seek to seed this awareness of the importance of conservation efforts in children as young as in preschool through nationwide preschool resources and programmes about our native wildlife and responsible human-wildlife encounters.

### Investing in Capacity Building for Staff

NParks officers have specialised development plans for core competencies, from arboriculture and horticulture to veterinary science and animal management, ensuring the day-to-day running of our green spaces. Specialist functions such as investigations, enforcement and international relations are also governed by competency frameworks, ensuring that our workforce remains current and competent.

As Singapore marks 60 years of independence in 2025, NParks also celebrates several milestones. Our Centre for Wildlife Forensics has been designated as the first World Organisation for Animal Health Collaborating Centre for Wildlife Trade and Wildlife Health, focusing on risk analysis and management of wildlife movement. We are also heartened that many have started licensing and microchipping their cats, as well as completed the responsible pet ownership courses, as part of the first-year implementation of the Cat Management Framework. This reflects a growing public commitment and investment in animal welfare.

### Countering Climate Change

Even as we pause to reflect on our progress, we will continue to look ahead and actively plan for the future. As part of the Draft Master Plan 2025, NParks is collaborating closely with partner agencies to leverage nature-based solutions as a sustainable way to mitigate and adapt to the impacts of climate change in our urban environment, while introducing more integrated green spaces across Singapore. This includes developing the upcoming Mandai Mangrove and Mudflat Nature Park and the Kranji Nature Corridor that will strengthen ecological connectivity in the northern region of the island as well as the Central Catchment Nature Reserve, while also providing new nature-based recreation opportunities for connecting residents.

I wish to express my deepest appreciation to our dedicated staff, invaluable partners, and passionate volunteers, whose tireless efforts have made these achievements possible. To all our stakeholders, your partnership continues to inspire and advance our City in Nature vision. We remain steadfast in our commitment to build upon this strong foundation, pursuing even greater heights of environmental stewardship, scientific innovation and community engagement.

Together, let us continue this important work to create an even more sustainable, endearing and vibrant Singapore for generations to come.

### Loh Khum Yean

Chairman, National Parks Board

# MEMBERS OF THE BOARD

(AS OF SEPTEMBER 2025)



**Mr Loh Khum Yean**

CHAIRMAN  
National Parks Board



**Ms Tham Loke Kheng**

BOARD MEMBER  
Chief Executive Officer  
Mediacorp Pte Ltd



**Ms Eu Chin Fen**

BOARD MEMBER  
Chief Executive Officer  
Fraser's Hospitality



**Mr Gerald Tan**

BOARD MEMBER  
Executive Director  
Business Selection,  
Reputational Risk and Conflicts  
UBS Global Banking



**Ms Nur Hidayah  
Abu Bakar**

BOARD MEMBER  
Dean, Faculty of Design  
LASALLE College of the Arts



**Mr Benett Theseira**

BOARD MEMBER  
Managing Director and  
Head of Asia Pacific  
PGIM Real Estate



**Ms May Loh**

BOARD MEMBER  
Partner &  
Singapore Office Head  
Albright Stonebridge Group



**Mr Stephen Beng**

BOARD MEMBER  
Head, ESG Strategy  
Phillip Capital Management  
(S) Ltd



**Ms Magdelene Chua**

BOARD MEMBER  
Partner, Assurance  
PricewaterhouseCoopers LLP



**Mr Lim Shung Yar**

BOARD MEMBER  
Senior Director  
Leadership Development  
& Strategy  
Public Service Division



**Ms Hwang Yu-Ning**

BOARD MEMBER AND  
CHIEF EXECUTIVE OFFICER  
Chief Executive Officer  
National Parks Board

# MANAGEMENT TEAM

(AS OF SEPTEMBER 2025)



**Ms Chua Yen Ling**

**GROUP DIRECTOR**  
Corporate Strategy & Planning and Parks West

**Prof Tan Puay Yok**

**EXECUTIVE DIRECTOR**  
National Parks & Gardens Cluster

**CHIEF SCIENCE & TECHNOLOGY OFFICER**  
Centre for Science of Urban Nature

**GROUP DIRECTOR**  
Singapore Botanic Gardens

**Ms Hwang Yu-Ning**

**CHIEF EXECUTIVE OFFICER**

**Dr Kiat W Tan**

**ADVISOR TO NPARKS**

**Mr Ng Boon Gee**

**GROUP DIRECTOR**  
Fort Canning Park & Istana

**Dr Karenne Tun**

**GROUP DIRECTOR**  
National Biodiversity Centre



**Ms Lee Pin Pin**

**GROUP DIRECTOR**  
Communications & Community Engagement

**Mr Lim Liang Jim**

**GROUP DIRECTOR**  
Conservation

**SENIOR DIRECTOR**  
International Biodiversity Conservation

**Ms Tan Lai Kheng**

**SENIOR DIRECTOR**  
Lifestyle Business

**Mr Tan Chong Lee**

**ASSISTANT CHIEF EXECUTIVE OFFICER**  
Corporate Development & Services Cluster

**Dr Chua Tze Hoong**

**GROUP DIRECTOR**  
Veterinary Health

**Dr Thereis Choo**

**SENIOR DIRECTOR**  
Singapore Botanic Gardens

**Mr Oh Cheow Sheng**

**GROUP DIRECTOR**  
Streetscape



**Ms Sophianne Mohd Araib**

**EXECUTIVE DIRECTOR**  
Jurong Lake Gardens and Horticulture & Community Cluster

**GROUP DIRECTOR**  
Horticulture & Community

**GROUP DIRECTOR**  
Jurong Lake Gardens

**Mr Wee Tee Heng**

**GROUP DIRECTOR**  
Finance & Procurement

**Dr Yap Him Hoo**

**DEPUTY CHIEF EXECUTIVE OFFICER**  
Professional Development & Services Cluster

**GROUP DIRECTOR (COVERING)**  
Industry/CUGE

**Mr Tan Jun Chao**

**GROUP DIRECTOR**  
Parks Central

**Dr Chang Siow Foong**

**DIRECTOR-GENERAL**  
Animal & Veterinary Service Cluster

**Ms Ang Wei Ping**

**GROUP DIRECTOR**  
Policy & Planning



**Mr Chia Seng Jiang**

**GROUP DIRECTOR**  
Parks East

**Ms Kartini Omar**

**GROUP DIRECTOR**  
Parks Development & Design

**Mr Tang Tuck Weng**

**ASSISTANT CHIEF EXECUTIVE OFFICER**  
Park Management & Lifestyle Cluster

**Dr Charlene Judith Fernandez**

**GROUP DIRECTOR**  
Professional & Scientific Services

**Mr Francis Lim**

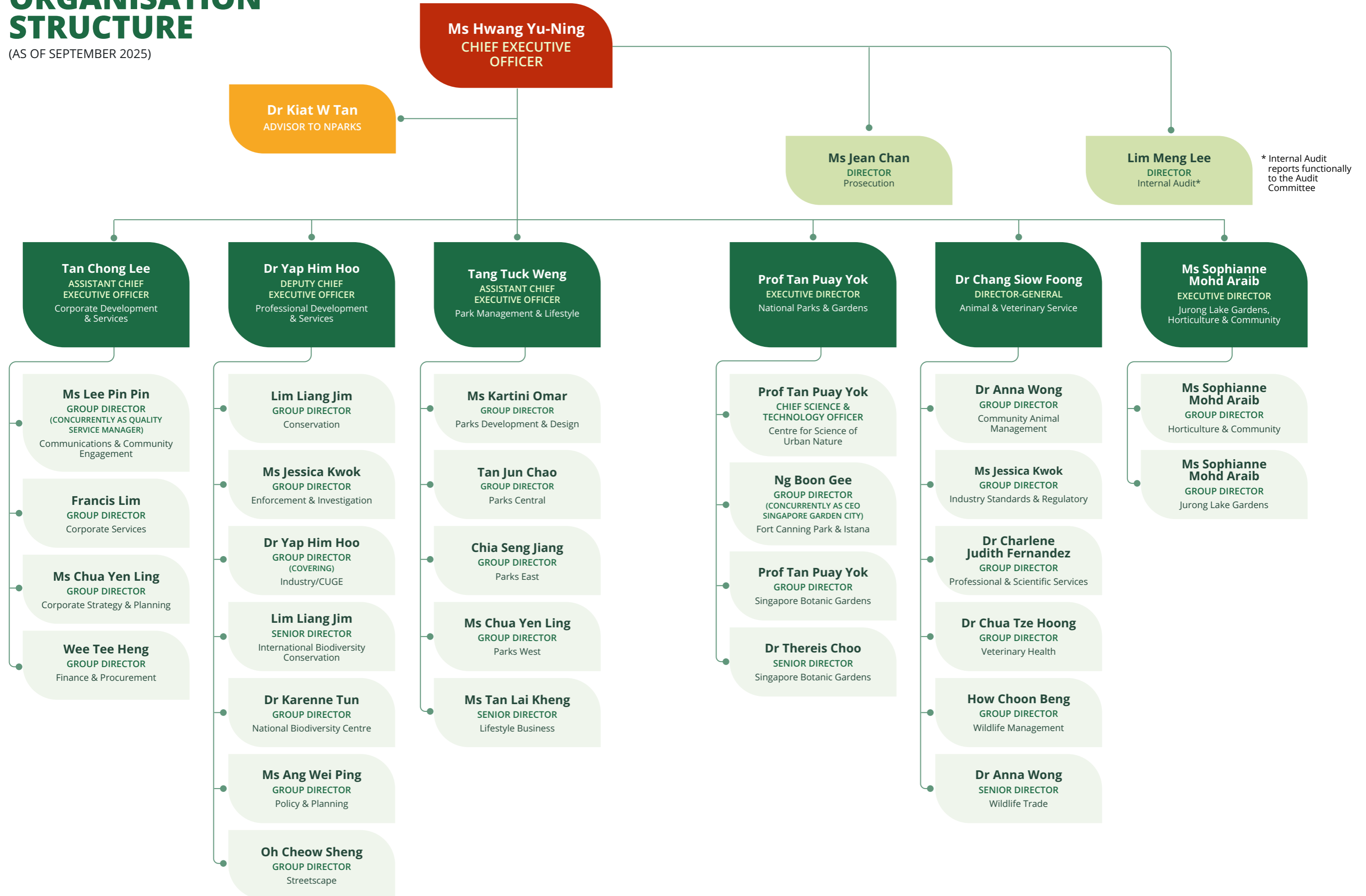
**GROUP DIRECTOR**  
Corporate Services

The Management Team photos were taken at the Chinese Garden (Edible Garden) and Japanese Garden (Sunken Garden, Water Lily Garden, Guesthouse) in Jurong Lake Gardens.

Not in picture: Ms Jessica Kwok, Group Director, Enforcement & Investigation and Industry Standards & Regulatory; Dr Anna Wong, Group Director, Community Animal Management and Senior Director, Wildlife Trade; How Choon Beng, Group Director, Wildlife Management

# ORGANISATION STRUCTURE

(AS OF SEPTEMBER 2025)

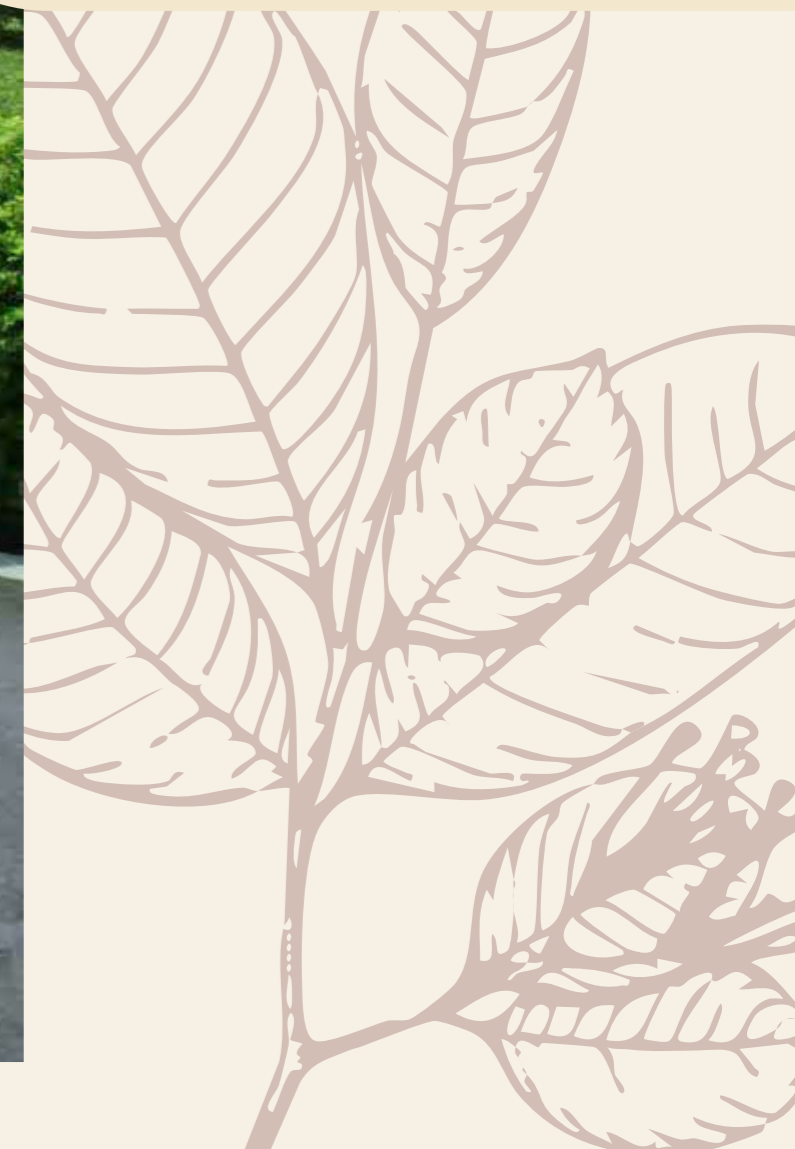


\* Internal Audit reports functionally to the Audit Committee



## OUR GROWTH, FOR NATURE

As climate challenges intensify across the globe, collective efforts to green Singapore are more important than ever. By collaborating as one community, Singapore can build a City in Nature that reflects its shared commitment to environmental stewardship and quality of life.



## Partnering Communities to Build Greening Momentum

The OneMillionTrees Movement continues to transform our landscape, with 81,000 new trees planted this fiscal year, pushing the total to more than 760,000. The movement is a cornerstone of NParks' City in Nature vision and the Singapore Green Plan 2030. It highlights how NParks is partnering with different communities to expand our urban forest canopy, foster public involvement in greening projects and strengthen climate resilience for generations to come.

## Gardens for the People, by the People

2024 saw the opening of the rejuvenated Chinese and Japanese Gardens, completing the development of Jurong Lake Gardens — Singapore's first national gardens in the heartlands. Together with Lakeside Garden and Garden Promenade, they form a 90-ha green oasis that blends cultural heritage with nature.

Prior to its opening, over 150 community stakeholders rolled up their sleeves in July 2024 to plant trees and shrubs in the Japanese Garden, continuing a proud tradition of getting communities involved in shaping our living environment. Following public feedback, the rejuvenated Jurong Lake Gardens features improved amenities including new floral displays, aquatic gardens, galleries and community spaces. These enhancements provide more diverse nature experiences for all visitors regardless of age, while staying true to the gardens' heritage and community-focused purpose.

As NParks' Living Lab, Jurong Lake Gardens is at the forefront of integrating sustainable design, smart technology, and green innovations into park development and management. Similar to Lakeside Garden, the Chinese and Japanese Gardens were built with sustainability at their core, featuring innovative solutions for efficient operations and greener outcomes.

In conjunction with the completion of the Chinese and Japanese Gardens, NParks and the Land Transport Authority (LTA) installed a series of artworks within Chinese Garden MRT Station. These artworks are inspired by the natural and cultural heritage of the Chinese Garden, adding vibrancy to the station.



NParks Chairman Loh Khum Yean (left), Minister for National Development Chee Hong Tat (centre) and NParks CEO Hwang Yu-Ning (right) play their part in the OneMillionTrees movement.

## Opening Green Spaces for Communities to Enjoy

The opening of Bidadari Park in September 2024 enables residents to enjoy the experience of "living in a park". New parks like these showcase Singapore's multifaceted approach to urban greening, where public well-being, community co-creation and ecological conservation grow hand-in-hand. Well known as a nature haven since the 1990s, the sensitively enhanced Bidadari Park continues to be a vital stopover point for migratory birds such as the Oriental Dwarf Kingfisher (*Ceyx erithaca*).



Scan to watch a highlight reel of Bidadari Park.

The reporting year also saw the opening of Pek Kio Park, designed to cater to diverse users with recreational features that blend nature and activity, including a nature play area for children's imaginative exploration and a sensory path to keep seniors engaged and mobile.



NParks partnered with specialists to ensure the preservation of the Chinese Garden's distinctive character, conserving or adapting several original structures such as the Twin Pagoda (pictured), Grand Arch, Cloud Pagoda, Bonsai Garden, Stoneboat and Tea Pavilion.



Park-goers of all ages can enjoy the playground, exercise machines and cycling paths at Tampines Boulevard Park.

Over in the east, residents have more green spaces to enjoy, with the opening of the 10.06-ha Tampines Boulevard Park that spans the east and west sections divided by Tampines Avenue 12. The new park expands recreational options for residents while improving green space connectivity across the region. Tampines residents provided feedback via an online survey conducted in 2020, resulting in the inclusion of amenities like the nature playgarden and activity lawn in the park.



Rex and Maya  
Nature Kakis

"Pek Kio Park embodies our commitment to caring for the environment while bringing our community closer. This is just the beginning and we're excited to work alongside our residents to create many more green havens like this!"

Ms Rex Lee and Ms Maya Patnaik are part of the Nature Kaki group Our Green MoCa, located in Moulmein-Cairnhill. They have championed sustainable and green efforts such as a green corridor in the neighbourhood, and most recently, worked together with NParks to co-create a vision for the newly-opened Pek Kio Park.



Scan to read more of their story.



Members of the public participated in free therapeutic horticulture sessions at different therapeutic gardens across Singapore. Through gardening and creative projects such as leaf collages and mandala making, participants benefitted from low-intensity exercise, cognitive stimulation and social interaction.

## Recharging in Nature

In our fast-paced lives, therapeutic gardens are sanctuaries where we can reconnect with nature and restore well-being. In the past year, three new gardens expanded on this initiative, bringing the total to 17 therapeutic gardens in Singapore.

The new therapeutic garden at West Coast Park provides barrier-free access to activity zones tailored for seniors, wheelchair users and children with special needs. Over at Punggol Park, visitors to the therapeutic garden can enjoy inclusive facilities developed with the Singapore Disability Sports Council, including Singapore's first outdoor bocchia court and wheelchair obstacle course, alongside Active and Passive Zones for varied therapeutic engagement. Finally, the therapeutic garden within Pek Kio Park applies evidence-based design to foster well-being through nature immersion.



**Mr Phillip Lee** is known as the 'gardening guy' at the Institute of Mental Health. He has implemented gardening programmes for patients, forging social bonds between them and the community.



Scan to read more of his story.

## Inspiring the People's Botanical Curiosity

Since its founding in 1859, the Singapore Botanic Gardens has evolved into a world-class institution for botanical science, research and conservation. Over the past year, the Gardens has offered visitors a multidimensional exploration of the relationship between people and plants, showcasing both the institution's scientific leadership and its commitment to public education.



At the Jacob Ballas Children's Garden, young visitors can splash through simulated rain from umbrella fountains, watch evaporation in action at upward-shooting water jets, and follow along as water runs down miniature hills in the Splash Zone.

Young minds now have more ways to understand and appreciate nature. A dedicated water play area was reintroduced at the Jacob Ballas Children's Garden in the Singapore Botanic Gardens, where children can engage with nature in a fun and immersive way. Carefully designed elements enable children to experience firsthand how plants contribute to transpiration and rain formation. Educational signs placed throughout the space explain these natural processes, turning playtime into valuable lessons about the environment.

Over at the CDL Green Gallery, *A Garden of Birds* revealed how urban green spaces sustain biodiversity through 160 photographs of 180 avian species, contributed by community photographers. Meanwhile, the Botanical Art Gallery transported visitors to the 18<sup>th</sup> century with *A Botanical Odyssey*.

The exhibition displayed unique engraved botanical illustrations based on drawings made during famed explorer James Cook's world circumnavigation voyage, which began in 1768. At the Centre for Ethnobotany, the *Ethnobotany and Diversity of Dipterocarps* exhibition introduced visitors to the majestic rainforest giants of Southeast Asia, and how they have shaped the region's ecosystem and culture.

The latest plant collection to open at the Singapore Botanic Gardens is the Hoya House, a dedicated showcase for its namesake plant genus. The Hoya represents the largest genus in the *Apocynaceae* family, comprising over 500 distinct species. Curated over the years by researchers and horticulturists, the collection serves as an important living laboratory for botanical studies, featuring more than 70 different lowland species and cultivars primarily from Southeast Asia and Papua New Guinea.

In July 2024, NParks and the Ministry of Foreign Affairs jointly launched *Singapore's Orchid Diplomacy*, a book detailing and reflecting on the practice of Singapore's orchid diplomacy. The practice dates to 1956, when the *Aranthera Anne Black* was named after the wife of the Governor of Singapore. Since then, Singapore has named more than 280 orchid hybrids after foreign dignitaries and distinguished guests as a gesture of goodwill and friendship.



Singapore Prime Minister Lawrence Wong presents Vietnamese Party Secretary General To Lam and his spouse with an orchid named in honour of His Excellency, *Papilionanda To Lam Linh Ly*.

## Teaching Children about Our Urban Wildlife

NParks has introduced nationwide educational resources for children to foster early connections with urban wildlife. Important lessons about Singapore's biodiversity are conveyed through engaging activities, such as animal movement dances, illustrated storytelling or role-playing for children to practise safe responses to wildlife encounters. Distributed to all 1,900 Early Childhood Development Agency-registered preschools, these resources align with the Ministry of Education's Nurturing Early Learners Framework while adding unique nature-based dimensions.



Scan to watch 'Doing the Right Thing', an interactive video for children to learn about responsible human-wildlife encounters.



**Ms Chandar Prabah Rai** is the Centre Leader of E-Bridge Pre-School 504 Yishun. Her recent endeavours find her teaching her children about the ants around their school and learning about responsible human-wildlife encounters.



Scan to read more of her story.

"I hope our children develop a genuine respect and care for nature. I hope they grow into thoughtful stewards who appreciate their role in sustaining the delicate balance of our shared ecosystem."



Using a life-sized board game, preschool children can learn about responsible human-wildlife encounters in a fun and memorable way.



Scan to download the resources developed by NParks for preschoolers to learn about living in our City in Nature.

## Enlivening Green Spaces

In September 2024, Jurong Lake Gardens came alive with the largest edition of Lights by the Lake yet, drawing 300,000 visitors to a fusion of art, music and nature. Festivities at the Gardens reached new heights with the return of the NParks Concert Series in the Park: Rockestra® after a five-year hiatus at this location, as local artistes rocked the stage with a dynamic mix of pop hits. The event also supported a meaningful cause, with proceeds going to the President's Challenge Charity Fund.



Over 300 handcrafted lanterns — the most ever displayed — illuminated the nights with depictions of folklore and Singapore's rich biodiversity, creating an enchanting outdoor gallery at Lights by the Lake.

Another edition of NParks Concert Series in the Park: Rockestra® brought unforgettable energy to Fort Canning Park in June 2024. Artistes delivered electrifying performances, blending original compositions with crowd-favourite covers. This concert marked a milestone, celebrating two decades of Rockestra®, reinforcing NParks' commitment to enlivening our green spaces and providing a dynamic platform to spotlight homegrown talent. Additionally, the 2024 Heritage Festival at the Singapore Botanic Gardens and Fort Canning Park offered an engaging array of activities for visitors of all ages. Highlights included enchanting musical performances amidst the Gardens' lush landscapes, creative children's workshops, and a vibrant weekend marketplace at Fort Canning Park.



Park-goers enjoyed tunes ranging from 1980s anthems to contemporary hits at the 22<sup>nd</sup> edition of Rockestra®, held at Fort Canning Park in June 2024.

## Parkside Fun For Residents

On 8 June 2024, residents enjoyed a high-spirited ECP Day at East Coast Park, held in conjunction with the People's Association's East Coast Family Fiesta. Members of the Friends of East Coast Park community and partners transformed the coastline into a living classroom, where residents could share and learn about the area's biodiversity, hidden nature spots, and community stewardship efforts. Besides the booths and activities, the event also featured outdoor movie screenings under the stars and live bands serenading guests to the rhythm of the sea.

Park-goers also enjoyed the Park Connector Network Challenge 2024, a collaboration with Singapore Kindness Movement that combined outdoor exploration with community building. This initiative invited park users to spread graciousness while discovering the park connectors using the NParks Explore a Route (NEAR) mobile app.



Scan to download the NEAR app and explore more cycling trails.

## Enhancing Connectivity

In the past year, NParks continued to expand and enhance Singapore's ecological and recreational connectivity. Some 30 km of Nature Ways were completed in areas such as Sengkang, Tyersall, Upper Changi, Lower Seletar, and Telok Blangah, expanding the total network to 240 km. These Nature Ways serve as green corridors, lined with tiered vegetation that provides shade, supports biodiversity, and creates seamless linkages between parks, waterways and urban spaces.

In 2024, recreational connectivity was further expanded with the addition of the Jurong Town Hall, Pandan Garden East Bank, Paya Lebar and Upper Thomson Park Connectors, bringing the total length of Singapore's Park Connector Network (PCN) to 393 km.

Building on efforts to enhance connectivity and greenery, NParks has fostered community-driven initiatives to revitalise urban spaces. The new Buona Vista Community Node, the first of its kind along the Rail Corridor (South), reflects the collaborative spirit of agencies, stakeholders and the public in shaping the future of the Rail Corridor.



The new Pandan Green East Bank Park Connector features native flowering species such as *Leea rubra* and *Planchonella obovata*. With scenic views of the Pandan River, visitors can also spot native wildlife like herons and otters.

Extensive engagement with the Friends of the Rail Corridor, residents, students, heritage and nature groups, and industry partners helped guide its design, ensuring it meets community needs while preserving the corridor's unique character.



**Ms Shikin Hussein** is a working mother of four boys who enjoys taking her kids out to the nearby parks and park connectors. From running, to cycling and playing in the playground, the outdoors plays a key part in their family time.



Scan to read more of their story.

## Singapore's 9<sup>th</sup> Garden Festival in Full Bloom

From 3 to 11 August 2024, the highly anticipated Singapore Garden Festival returned in full splendour for its ninth edition at Suntec Singapore Convention and Exhibition Centre, marking its first large-scale showcase since 2018.

President Tharman Shanmugaratnam graced the Awards Night, presenting prizes to the winners of the Best of Show Designer Gardens, Balcony Gardens, and Floral Table-Top categories. Attended by designers, florists, and horticulturists from all over the region, the Festival showcased an extraordinary lineup of 12 show designer gardens created by 16 award-winning local and international designers.

This edition held special significance as Singapore concurrently hosted the 8<sup>th</sup> Global Botanic Gardens Congress, the only global meeting dedicated to botanic gardens.

Beyond the show gardens, the Festival pulsed with community spirit. The seventh Singapore Gardeners' Cup celebrated local community gardening groups, while themed gardens spotlighted grassroots creativity. Visitors explored wearable floral art, exquisite bonsai and Ikebana arrangements, and a botanical photography exhibition, all demonstrating how deeply gardening is rooted in Singaporean life.



The multi-layered skyrise greening strategy adds a distinctive character to urban architecture while playing a key role in restoring nature in urban areas.

## Partnerships Redefine Urban Greenery

An additional 36 ha of skyrise greenery was added in 2024, raising the total skyrise greenery footprint to 229 ha, effectively integrating nature into the built environment. The success of NParks' Skyrise Greenery Programme stems from strong public-private collaboration, driven by regulatory frameworks such as the Urban Redevelopment Authority's Landscaping for Urban Spaces and High-Rises programme and the Housing and Development Board's green initiatives for public housing.



Minister at the Prime Minister's Office and Second Minister for Finance Indranee Rajah (far right) and then-Nee Soon South Grassroots Adviser Carrie Tan (middle) visit booths and marketplace stalls at the Singapore Garden Festival.



SECUF brings together diverse stakeholders and serves as a platform for community engagement, skill-sharing and improvement of collective well-being, showcasing how environmental and community goals can grow hand-in-hand.

## Growing Collaborative Initiatives

To strengthen community bonds through nature, NParks launched Singapore's first Social Enterprise Community Urban Farm (SECUF) in West Coast Park, in partnership with social enterprise City Sprouts. Spanning 5,000 m<sup>2</sup>, this innovative venture brings together diverse stakeholders such as social enterprises, grassroots organisations, volunteer groups and eldercare beneficiaries to cultivate shared green spaces. Beyond farming, SECUF features communal spaces such as an integrated Community Hall and a mission-driven café, fostering social interaction and promoting sustainable urban agriculture.



Community gardens enable residents to maintain their own green space and grow a variety of plants, fostering deeper connections with nature.

## Celebrating 20 Years of Community In Gardening

In 2025, the Community in Bloom (CIB) initiative celebrates 20 years of gardening with the community. With seven new ambassadors appointed this past year, the initiative now has a total of 109 ambassadors championing the gardening movement in the community. Since the programme's inception in 2005, these ambassadors have played a pivotal role in nurturing a gardening culture, inspiring communities, sharing horticultural

knowledge and realising the City in Nature vision. Further supporting this movement, 76 new allotment gardening plots were introduced in parks in Pasir Ris, Sengkang and Yishun, bringing the total to over 2,400 plots across 28 parks and gardens. Additionally, 90 new community gardening groups were established in the past year, increasing the total to 2,110 groups islandwide.

## Passionate Young Stewards Support Our City in Nature

Passionate young stewards in the community are driving efforts towards a City in Nature. The 2024 Youth Stewards for Nature Programme consisted of some 160 youths spearheading projects across the areas of publicity and communications, social media, digital mapping, recruitment, and strategic programmes. Guided by NParks' staff mentors and the programme's alumni, these young leaders gained hands-on experience in horticulture, biodiversity conservation and landscape management while tackling real-world sustainability challenges.

Building on the momentum of local youth engagement, Singapore took a pioneering role on the international stage by hosting the inaugural CITES Youth Leadership Programme from 22 to 25 April 2024. The programme's crowning achievement was the establishment of the CITES Global Youth Network, a first-of-its-kind platform for young changemakers in promoting sustainable wildlife trade and conservation.

Meanwhile, the Nature Kakis Network has blossomed into a powerful force for community-led conservation, now spanning 23 chapters across



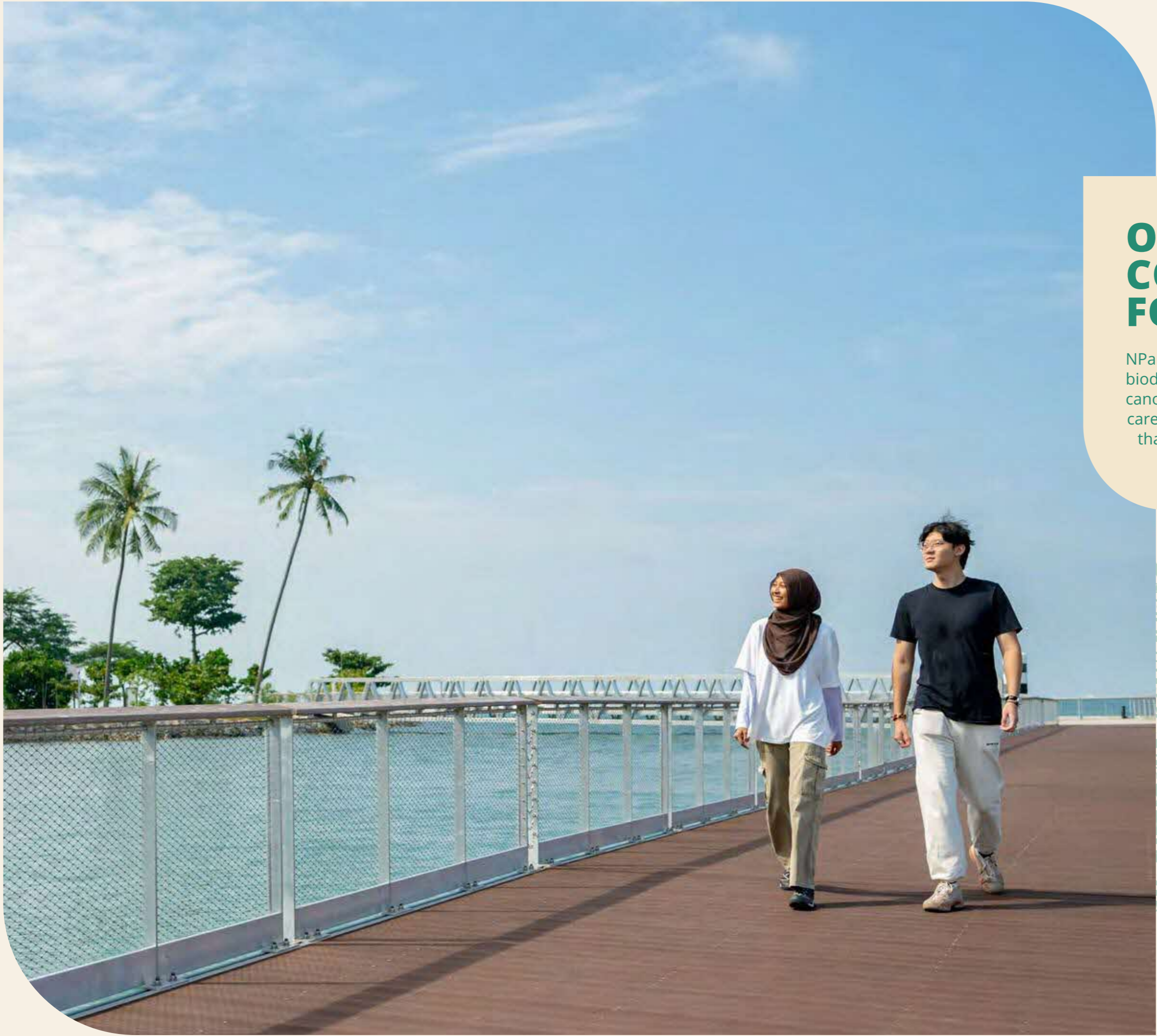
The CITES Youth Leadership Programme brought together 41 young leaders aged 18 to 30 from around the world for immersive learning, including team-building exercises, interactive wildlife trade simulations at the zoo, leadership panels and a mock Conference of the Parties (CoP).

the island. Induction programmes and learning festivals brought them together to connect, learn from each other and encourage stronger community stewardship of nature.

From small neighbourhood projects to islandwide and global initiatives, these stewards demonstrate how the community can transform Singapore into a City in Nature — one milestone at a time.



Volunteers conduct a guided nature walk during the Nature Kakis Appreciation Event 2025: Learning Festival. The event highlighted the creativity and dedication of these community stewards, featuring interactive booths on biodiversity and community animal management; hands-on activities like nature art printing and scent bag making; and a showcase of chapter projects like the Bishan East-Sin Ming audio tour prototype and Marymount's neighbourhood planting efforts.



# OUR CONSERVATION, FOR NATURE

NParks' continued efforts to safeguard native biodiversity are bearing fruit under a vital canopy of support networks, rooted in the care and commitment of the community that has stepped up to steward our natural environment.



## Diving Deeper into Biodiversity Research

NParks launched the second phase of the Comprehensive Marine Biodiversity Survey (CMBS II), in collaboration with the National University of Singapore's Lee Kong Chian Natural History Museum and Tropical Marine Science Institute. Building on insights from the first phase, CMBS II will explore new biomes and sites to provide a complete picture of our marine biodiversity, which will inform future conservation plans. It will also build local capacity in marine research by employing and testing novel tools that can be used for research projects beyond CMBS II, such as Autonomous Reef Monitoring Structures, seabed corers and mobile labs.



A stony coral (*Micromussa amakusensis*, pictured) being cultivated in a coral culture facility. *Micromussa* corals and Plate *Acropora* corals (*Acropora millepora*) are two of the target species that will be cultivated under NParks' Species Recovery Programme for corals.

2024 also saw the release of publications crucial to conservation planning and management. One of these was the third edition of the *Singapore Red Data* book, which is the most comprehensive edition yet, recording the conservation status of more than 9,400 species — over thrice as many as the previous edition. Additionally, the revised Biodiversity Impact Assessment guidelines now include new marine habitat types and updates on how baseline studies on terrestrial and marine sites should be conducted.

Such resources help developers and industry practitioners understand how the impact of development works on local flora and fauna is evaluated in an Environmental Impact Assessment. Altogether, these advancements in research allow us to better conserve our natural heritage and strengthen Singapore's ecological resilience.

## New Successes for Conservation

In the country's most ambitious coral restoration effort yet, NParks launched the 100k Corals Initiative, which aims to plant 100,000 corals in Singapore's waters over the next decade and beyond. With support from researchers and experts at the St John's Island National Marine Laboratory, corals will be cultivated at a new facility at the Marine Park Outreach and Education Centre on St John's Island, using smart technology to optimise large-scale coral cultivation. They will then be transplanted into our marine environment to help restore degraded reefs or establish new coral communities. The programme crucially expands NParks' existing coral restoration efforts, where targeted propagation of some species of hard corals (including *Pavona cactus* and *Porites cylindrica*) is ongoing. Given Singapore's limited coral cover, these initiatives aim to improve the resilience of our local coral communities and reefs.

NParks also successfully carried out the first ex-situ conservation work for all three of Singapore's endemic freshwater crab species: Johnson's Freshwater Crab (*Irmengardia johnsoni*), Singapore Freshwater Crab (*Johora singaporensis*) and Swamp Forest Crab (*Parathelphusa reticulata*). About 1,900 crabs across the three species have been bred and produced in captivity, with some being released into the wild to increase their natural population — a landmark achievement for NParks' Species Recovery Programme. The programme, introduced in 2015 as part of NParks' Nature Conservation Masterplan, focuses on conserving endemic, rare or threatened native species in Singapore through reintroduction, habitat enhancement and protection efforts.



Singapore Freshwater Crab (*Johora singaporensis*)



Scan to learn more about the frogs and crabs under NParks' Species Recovery Programme.

Native flora populations also received a boost, with NParks propagating, reintroducing and distributing thousands of specimens of critically endangered native species across habitats. One such species is the Two-fold Velvet Bean (*Mucuna biplicata*), a critically endangered flora from Singapore's lowland dipterocarp forests that was recently discovered in 2022, in just one location in western Singapore.



As part of species recovery efforts, the Two-fold Velvet Bean (*Mucuna biplicata*) is currently being protected in-situ, with ongoing efforts to propagate it from seeds and stem cuttings.

## Growing Blue Sanctuaries

Nature-lovers now have even more to explore with the reopening of Sisters' Islands Marine Park, revamped with fresh features that support conservation, research, outreach and education. New additions include Singapore's first floating boardwalk that doubles as a coral habitat and research site; a coastal forest trail leading to a scenic hilltop deck; and an enhanced lagoon that serves as an outdoor classroom while supporting mangrove restoration and monitoring programmes. These upgrades allow the public to get up close and personal with the rich marine life of our City in Nature.

Meanwhile, plans are in motion to designate a second marine park at Lazarus South-Kusu Reef. In 2022, NParks' Ecological Profiling Exercise on Singapore's coastal and marine environment found habitats at Lazarus Island and Kusu Island to be ecologically significant, in line with the Singapore Blue Plan 2018 drawn up by the nature community. The new park will enhance ecological connectivity as well as the conservation and management of both terrestrial and marine sites, while offering more opportunities for nature-based recreation, outreach and education.



Sisters' Islands Marine Park is home to Singapore's first floating boardwalk that spans 220 m. Integrated habitat panels along the lower sides support coral growth and attract diverse marine species, functioning as both a living reef and a coral nursery.



Scan to check out all you can do at Sisters' Islands Marine Park!

## Charting Ubin's Next Chapter

The next phase of The Ubin Project was launched in conjunction with its 10<sup>th</sup> anniversary, bringing a set of proposals co-developed by the Friends of Ubin Network, the Ministry of National Development and NParks. This next phase will build on past efforts to conserve Pulau Ubin's rich biodiversity, heritage and culture while facilitating environmental education and nature-based recreation. Upcoming plans range from implementing more species recovery efforts and initiatives to support villagers, to rolling out a dedicated Kampung House Restoration Programme and the Ubin School Initiative.

## Building Green Bridges

More projects are in the pipeline to extend green networks across the country — facilitating nature-based recreation and serving as important bridges for wildlife movement. The upcoming Bukit Batok Nature Corridor will connect Bukit Timah Nature Reserve and the future Tengah Forest Corridor. Parks, nature trails, boardwalks, play areas and an enhanced stream are among the many features that the community will be able to enjoy here.



Mandai Mangrove and Mudflat Nature Park will provide complementary habitats for migratory birds such as the Pacific Golden Plover (*Pluvialis fulva*), which stop over in Sungei Buloh Wetland Reserve every year to feed and roost.

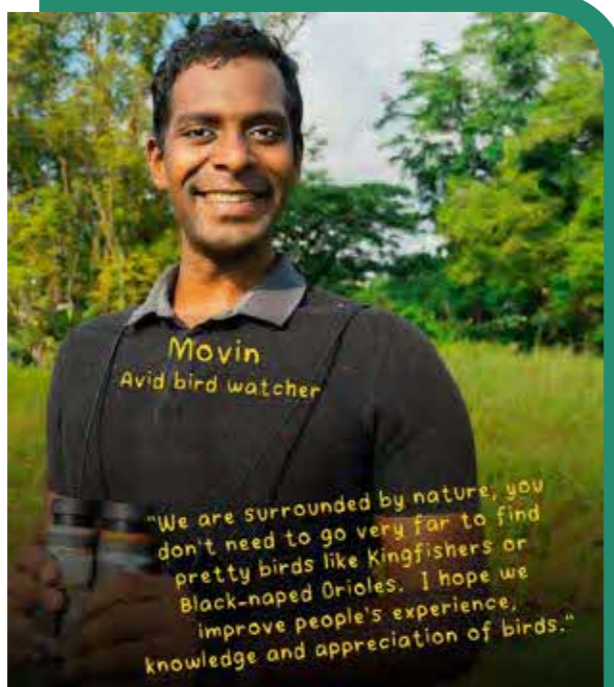
In northern Singapore, Mandai Mangrove and Mudflat will be conserved as a nature park that will enhance coastal protection and boost wetland and migratory shorebird conservation, leveraging its ecological links to the nearby Sungei Buloh Wetland Reserve. Mangroves, with their dense root systems, are in themselves nature-based solutions, defending our coasts against erosion by waves and wind. Other forms of nature-based solutions, such as slope-regrading and the use of geobags for coastal restoration and reinforcement, will also be employed in the design of the coastal trails. The trails, bird hides and visitor nodes will offer the public opportunities to learn more about the fauna and flora there.



Participants of an Avian and Wildlife Photography Outing point their cameras towards Pekan Quarry. The quarry is a haven for birds thanks to the flourishing floating wetlands — nature-based solutions that help with wastewater treatment and enhance the habitat for biodiversity. Beyond the quarry, Pulau Ubin is a sanctuary for birdlife, including the White-rumped Shama (*Copsychus malabaricus*, pictured above) and Straw-headed Bulbul (*Pycnonotus zeylanicus*), two native songbirds heavily impacted by illegal wildlife trade.

## Bringing Biodiversity Closer to Singaporeans

Held at One Punggol in May 2024, the annual Festival of Biodiversity returned for its 13<sup>th</sup> edition to celebrate the community's efforts to conserve our natural heritage. Its exciting array of activities gave residents a fun and vibrant introduction to our abundant biodiversity, fostering greater interest in local conservation among Singaporeans.



**Mr Movin Nyanasengeran**, President of the Bird Society Singapore, is on a mission to get people interested in the birds of Singapore. From nature reserves to housing estates, he is certain there is a bird for everyone.



Scan to read more of his story.



Students from Northoaks Primary School Environmental Science Club present their Bird Identification Project to President Tharman Shanmugaratnam, which they had done under Nature Society Singapore's Every Student a Naturalist programme.



Scan to watch 'A Quarry Quest on Pulau Ubin'.

## Staying Vigilant against Animal Diseases

While Singapore remains free of high pathogenicity avian influenza (HPAI), also known as bird flu, the disease's endemic status in the region requires constant vigilance. In 2024, the Animal & Veterinary Service (AVS), a cluster of NParks, and the Singapore Food Agency (SFA) jointly conducted Exercise Gallus X, simulating a bird flu outbreak at a local farm to test our operational readiness. The exercise involved setting up a temporary structure for personnel and equipment to support ground operations efficiently; carrying out operations to effectively manage an HPAI incursion; and ensuring efficient delivery of supplies and support services.

In the area of biosurveillance, AVS continues to gather and conduct research on disease threats, which helps inform risk-based policies to detect and manage diseases early. Agencies will continue to monitor HPAI developments beyond our shores, including engaging with overseas authorities to safeguard public and animal health in Singapore.



Officers donning personal protective equipment during Exercise Gallus X, as part of AVS and SFA's efforts to regularly test operational readiness for a bird flu outbreak.

## Raising the Bar for the Pet Sector

AVS continues its work to raise animal health and welfare standards within the pet sector. The Cat Management Framework was rolled out in September 2024 to improve the traceability and welfare of cats in Singapore. As of 31 March 2025, around 30,000 pet cats have been licensed, 95% of which have been sterilised. Meanwhile, over 30,000 people have completed the online pet ownership course covering basic pet care, which is mandatory for first-time cat licence applicants.

Community support has been key, with many volunteers stepping forward to help. AVS also provided free microchipping for some 5,000 pet cats at pet-related and animal welfare events in the past year. In response to high demand for these free microchipping services, AVS is organising over 30 microchipping and licensing drives in 2025.

AVS also launched the Pet Cat Sterilisation Support programme, which provides free sterilisation and microchipping for lower-income households. As of 31 March 2025, over 350 pet cats have benefitted from the programme.

Pet care initiatives extend from felines to canines, with a new Dog Training Standards Workgroup building upon existing efforts to raise the standards of the dog training industry. Co-chaired by AVS and the Society for the Prevention of Cruelty to Animals, the group's work includes developing proposals to promote the Least Intrusive, Minimally Aversive approach to dog training, which emphasises humane dog training methods.



The Dog Training Standards Workgroup consists of dog trainers, veterinarians, animal welfare groups, and representatives from working dog units. It will review positions and develop regulatory frameworks on the use of training devices, including shock and prong collars.



AVS implemented the Trap-Neuter-Rehome/Release-Manage (TNRM) programme for community cats on 1 September 2024. TNRM builds upon and replaces the Stray Cat Sterilisation Programme, which started in 2011 and has seen an average of 4,000 cats sterilised and microchipped annually since 2020.

Looking towards the veterinary industry, AVS launched new telehealth guidelines covering telemedicine, teleadvice and triage, including recommendations on the use of telemedicine in different scenarios. These support NParks' efforts to raise the professional standards of the veterinary sector, as its size, scope and complexity continue to grow in tandem with Singapore's pet population.



A veterinary clinician, pet nutritionist, and the President of the Singapore Veterinary Association, **Dr Teo Boon Han**'s love for animals has led him to the vet sector. He spends his days treating animals and consulting for organisations. He also has teaching and research roles, and contributes actively in shaping industry policies and standards.



Scan to read more of his story.

AVS is also developing guidelines to establish common animal welfare standards for Singapore's animal shelters. The process of developing the guidelines involved multiple discussions with stakeholders, including animal welfare group (AWG) rehoming partners, animal shelters, veterinarians and animal trainers, before opening the proposed guidelines to public feedback. The proposed guidelines are being refined with the feedback gathered, and will be shared when ready.

## Safeguarding Healthy Community Animals

Launched in 2018, the Trap-Neuter-Rehome/Release-Manage (TNRM) programme continues to manage the free-roaming dog population through humane trapping, sterilising and rehoming. Around 80% of Singapore's free-roaming dogs have been sterilised to date, surpassing the target of 70%. As of 31 March 2025, over 4,300 free-roaming dogs have been trapped, 65% of which have been rehomed, fostered or sheltered. Sterilised dogs unsuitable for rehoming are released at suitable locations to live out their lives naturally.

In 2024, AVS extended the TNRM programme to community cats, in partnership with numerous AWGs. Under the programme, AVS co-developed community cat caregiving guidelines with stakeholders and expanded funding support for sterilisation and microchipping to include the trapping and boarding of community cats. These efforts serve to improve the management and welfare of animals within our communities.



Minister of State for National Development Alvin Tan attends Pets' Day Out, a signature event by AVS.

## Biosurveillance Action by Youths

Young stewards for nature supported NParks' biosurveillance efforts through the prototyping of a one-stop mobile application to help pet owners monitor their pets' health. The project aimed to improve communication between pet owners and vets for efficient treatment and raise public awareness of the transmission of zoonotic diseases. This represents another step forward in the broader effort to keep Singapore safe against zoonotic diseases.

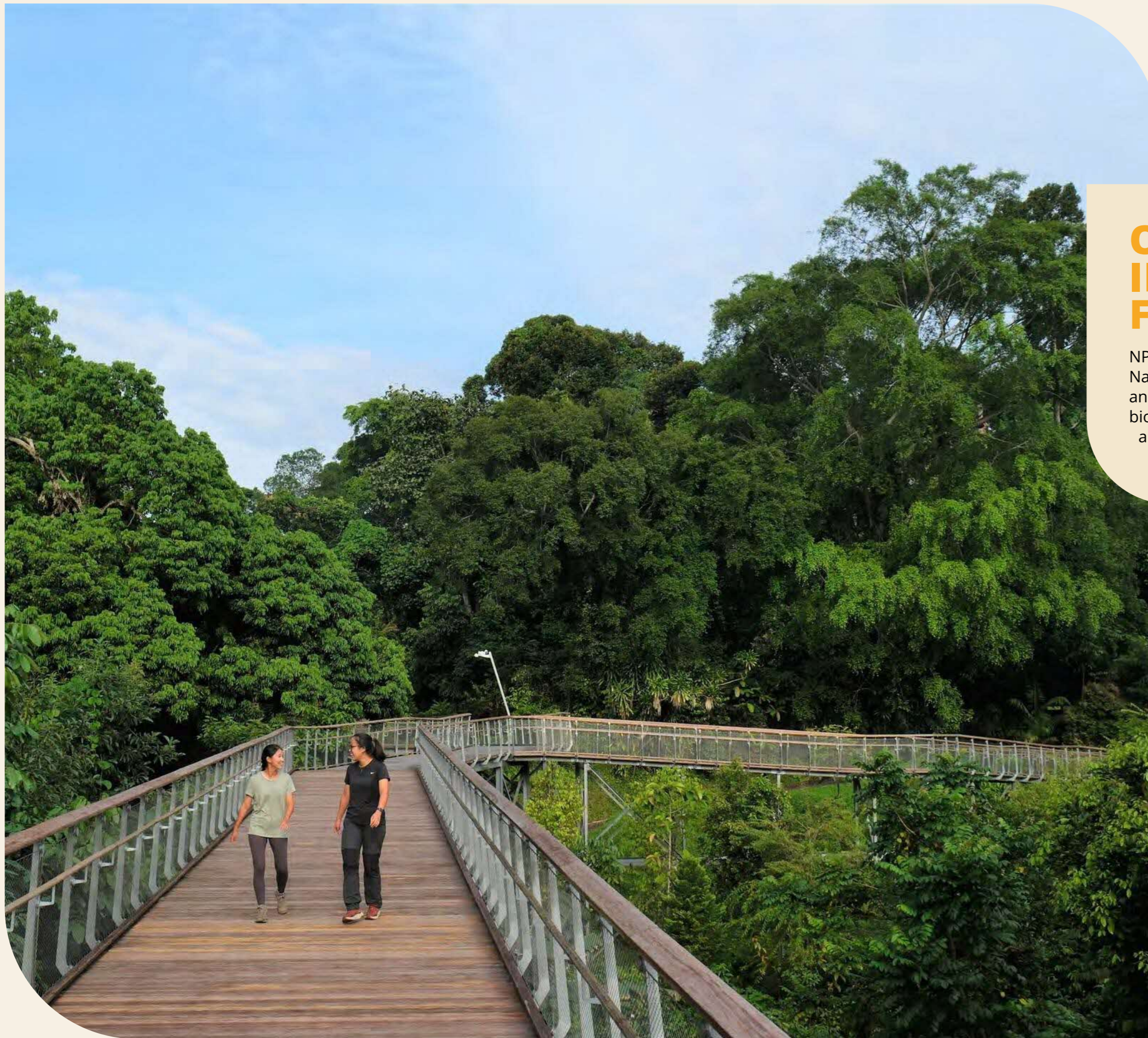
## Living with Wildlife

NParks adopts a science- and community-based approach to managing wildlife. To manage encounters with Long-tailed Macaques (*Macaca fascicularis*), NParks employs various measures such as studying the population ecology of macaques; minimising human sources of food by ensuring proper waste disposal and enforcing regulations against feeding; and making habitat modifications like removing fruit trees, guiding macaques away from human areas, and removing aggressive and intrusive macaques.

To complement these measures, NParks adopts a multi-pronged approach in engaging stakeholders and community leaders. This includes outreach on handling macaque encounters as well as engagement activities, such as residents' sharing sessions through Nature Kakis Chapters and community events.

In the heartlands, NParks launched two new initiatives to better manage crow and pigeon populations in 2024. For one, NParks has taken over crow nest removal operations for trees managed by the Town Councils, so as to expedite the process and control crow numbers.

Teaming up with the National Environment Agency, SFA and town councils, NParks also piloted a pigeon management action plan in Ang Mo Kio, Bishan-Toa Payoh and Tanjong Pagar. Over nine months, coordinated efforts were made to step up pigeon removal and encourage proper food waste management. With its success in reducing pigeon-related feedback and pigeon populations at hotspots, this plan will be extended to other estates in 2025.



## **OUR INNOVATION, FOR NATURE**

NParks continues to drive the City in Nature vision through knowledge sharing and innovations that enhance Singapore's biodiversity, uplift industry standards, and enrich our community as we work towards a greener future.





Ongoing research on the insect pollinator communities of our native plants will help researchers establish pollinator networks and assess landscape connectivity through population genetics.

## Innovating for Nature

NParks continues to lead a broad spectrum of research initiatives to deepen our understanding of urban biodiversity, ecosystem connectivity, and human-nature interactions.

Through its fourth grant call, NParks awarded four projects under the City in Nature research vertical and launched three new projects in January 2025. These projects will explore innovative, nature-based solutions such as using vegetation to reduce traffic noise, improving acoustic monitoring with machine learning, developing environmental DNA tools for biodiversity assessment, and studying outdoor thermal comfort. An upcoming grant call will focus on the impact of passive nature interventions on well-being and nature connectedness, to better understand how urban nature enhances health and liveability.

The Biosurveillance Steering Committee, led by NParks and consisting of other One Health agencies, launched its first grant call for research projects on zoonotic diseases and animal hosts and vectors. Research will cover a range of priority zoonotic diseases such as leptospirosis and avian influenza, as well as animal hosts and vectors like wildlife, birds, domestic dogs, cats and ticks. Such research and inter-agency collaboration will strengthen Singapore's preparedness and response to zoonotic diseases.

Wildlife and biodiversity research continues to advance through journal publications and new technology-driven initiatives. In the reporting year, NParks secured \$1.34 million from the Ministry of National Development's Public Sector Transformation initiative to deploy drones and robotics for wildlife tracking, and obtained funding for the development of crocodile intrusion detection technology.

NParks also made strides in marine climate change research through the Marine Climate Change Science Programme, awarding funding to seven projects and launching another grant call for projects on the restoration potential of blue carbon ecosystems and community resilience to rising sea levels. The programme also hosted its first symposium in November 2024, where participants discussed solutions to address the current and upcoming challenges faced by our coastal and marine environment.

In 2024, NParks boosted the work conducted under the Long-Term Socio-Ecological Research (LTSER) Programme, which studies how Singapore's urban ecosystems and communities change over time. Under the programme's first phase, NParks funded research projects focused on pollinator networks and tracking water, nutrient, and energy flows in urban and forest areas. These innovative efforts help us better understand and protect Singapore's biodiversity and natural ecosystems.

## Strengthening Partnerships Internationally

NParks strengthened international research and collaboration by partnering with leading institutions to advance Singapore's ecological resilience and sustainability.



The Bukit Timah Forest Dynamics Plot is a research site in Singapore, established in 1992 through a collaboration between the National Institute of Education, Nanyang Technological University, NParks, and the Smithsonian Tropical Research Institute. This plot is part of a global network for forest research and is used as a training site for researchers in the region.

In May 2024, NParks signed a Memorandum of Understanding with the Smithsonian Tropical Research Institute, based in Panama, to strengthen research collaboration at the Bukit Timah Forest Dynamic Plot and expand academic exchange through guest lectures and expert panels. The partnership aims to improve our understanding of tropical forest dynamics to support conservation and restoration strategies, and to develop local and regional research expertise through knowledge sharing and training.

NParks hosted the World Organisation for Animal Health Regional Workshop on Preparedness and Response for Emerging Diseases in Aquatic Animals and Antimicrobial Use and Antimicrobial Resistance in Aquaculture. The events brought together regional experts to enhance emergency response planning, and promote responsible antimicrobial use alongside the use of ANIMUSE, the global database that tracks antimicrobial use in animals. This also strengthened regional collaboration on sustainable aquaculture practices and animal health initiatives, while establishing groundwork for future partnerships with the Food and Agriculture Organization of the United Nations (FAO) and other countries.



The World Organisation for Animal Health workshop explored collaborative efforts to combat emerging aquatic animal diseases of regional significance.

NParks also represented Singapore at the 16<sup>th</sup> Conference of the Parties to the Convention on Biological Diversity (COP 16). Ahead of the COP, NParks submitted 20 national nature conservation targets — including increasing awareness of Singapore's native wildlife among students, developing a public record of 1,000 native plant species on Flora & Fauna Web, and keeping the proportion of wildlife traded illegally through Singapore each year to below 0.5%. These targets demonstrate Singapore's commitment to nature conservation and contribution to the global biodiversity agenda.

## Uplifting Professionals in Wildlife Management

As Singapore moves towards becoming a City in Nature, interactions between people and wildlife become increasingly common. As part of efforts to upskill Singapore's wildlife management sector, over 220 professionals were trained through the Animal Management Professional Certificate Programme. Introduced in 2020, the programme equips participants with skills in human-wildlife conflict resolution, wildlife behaviour, and safe handling, so as to better manage wildlife encounters while ensuring safety and animal welfare.

In a collaborative effort to enhance animal welfare standards, NParks worked with the National Environment Agency, Animal Concerns Research and Education Society, and the Society for the Prevention of Cruelty to Animals to revise glue trap guidelines for animal welfare. The updated guidelines aim to minimise harm to non-target species and enforce strict usage and response protocols.

NParks' leadership in combating wildlife crime was recognised with the Immigration & Checkpoints Authority (ICA) Commissioner's Commendation (Silver) Award, presented jointly to NParks and ICA's Intel Division for their outstanding collaboration in dismantling a live animal smuggling syndicate.

## Boosting Knowledge Sharing

Held from 5 to 10 August 2024, the 8<sup>th</sup> Global Botanic Gardens Congress welcomed over 900 delegates from more than 200 institutions across 73 countries. The milestone event fostered knowledge exchange through 150 talks, 80 poster presentations and 20 workshops, focusing on innovative ways for botanic gardens across the world to advance research, conservation, education, and outreach in pursuit of a sustainable future. During the event, the Singapore Botanic Gardens launched the Southeast Asia Plant Phenology (SEAPP) Network, which brings together ten botanic gardens from tropical Asia for long-term phenology monitoring to understand the impact of environmental change on tropical plants.

Beyond our shores, NParks and the Urban Redevelopment Authority of Singapore jointly showcased smart technologies at the Esri User Conference held in July 2024 in the United States. The international audience was able to learn about how Singapore plans and manages our greenery efficiently through the integration of our map-based greenery management platform Maven II with the remote sensors in our Contractor Fleet Management System, tree tilt sensors, and Remote Tree Management System.



At the 8<sup>th</sup> Global Botanic Gardens Congress, it was announced that the Singapore Herbarium will embark on digitising all 800,000 plant specimens in its collection. This will create a consolidated database of the specimens, which researchers from all across the world can access.



One of the ways the Singapore Botanic Gardens promoted research, outreach and education among the community was through the exhibition *A Garden of Birds: Community Photography Exhibition of the Birds of the Singapore Botanic Gardens*. The exhibition featured a selection of photographs by birding enthusiasts who come to the Gardens to observe, admire, study and research its birds.

## Empowering Youth to Lead a City in Nature

As vital agents of change with innovative ideas and a passion for environmental stewardship, youths play an important role as the next generation of wildlife conservation leaders.

Organised by NParks, the fourth World Wildlife Day Regional Youth Symposium, themed *Wildlife Conservation Finance: Investing in People and Planet*, welcomed nearly 700 attendees from over 26 countries — its largest turnout yet. The event connected aspiring youth conservationists with potential funders, mentors, and new opportunities to advance their projects. Participants engaged in keynote sessions, interactive workshops, and a live virtual exhibition featuring youth-run initiatives from Southeast Asia, where they learned practical strategies for launching, sustaining, and resourcing impactful conservation work.

As part of efforts to nurture young professionals for the landscape industry, NParks has renewed its partnership with the Institute of Technical Education (ITE) for another five years, working together to jointly create learning opportunities for students through internships, student-led park programmes, study awards, and curriculum development. By exposing students to fields like biodiversity and wildlife management and engaging them in real-world projects such as the landscaping of Jurong Lake Gardens, NParks and ITE strive to empower youth to actively contribute to our City in Nature.



The partnership between NParks and ITE equips students with the latest knowledge, skills and real-world operational experience to prepare them for the landscape industry.



**Ms Catherine Soh and Ms Dinu Williams** oversee the Landscape Services Department at the Institute of Technical Education (ITE), nurturing the next generation of the landscape industry in Singapore.



Scan to read more of their story.

## Smart Solutions for Wildlife in the City

In the reporting year, NParks recorded Singapore's first nesting of the Peregrine Falcon (*Falco peregrinus ernesti*) — a striking bird of prey found on every continent except Antarctica, and possibly Singapore's rarest breeding bird. The nest was discovered high in the recess of OCBC Centre, in the heart of the city, showcasing how even our urban skyline can offer refuge for wildlife.

The landmark discovery was published on 30 August 2024 in the scientific journal *Nature in Singapore* by NParks' Wildlife Management Research team.



Peregrine Falcons are one of the world's most widespread breeding birds, but are rare in Singapore.

Their first breeding attempt was unsuccessful, with the eggs being abandoned. To safely retrieve the unhatched eggs, NParks collaborated with robotics researchers from the Singapore University of Technology and Design (SUTD), adapting a drone system into the Egg Retrieval and Nesting Enhancement Support Tool (ERNEST). The eggs were later sent to the Lee Kong Chian Natural History Museum for further study.

This discovery reaffirms how well-managed urban spaces, enhanced by technology, can support biodiversity. Leveraging robotics and monitoring tools can further our understanding of urban wildlife and provide valuable insights to guide future conservation strategies in our urban landscape.



A researcher from SUTD sets up the Egg Retrieval and Nesting Enhancement Support Tool (ERNEST) to capture the abandoned eggs of the Peregrine Falcons.



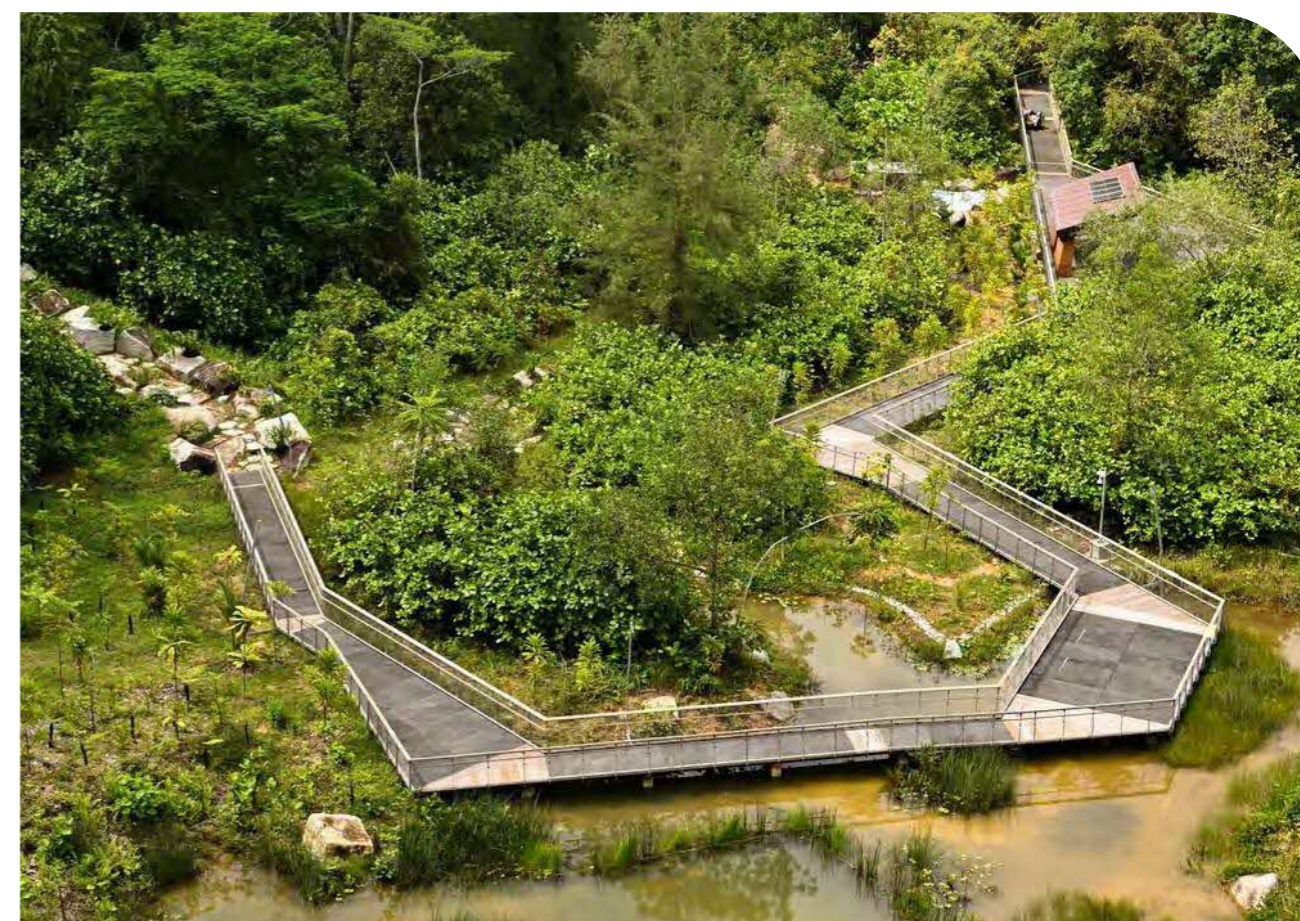
Scan to watch camera trap footage of the Peregrine Falcon chicks hatching.



**Dr Foong Shaohui and Ms Clarissa Leong** are from the team of engineering researchers at the Singapore University of Technology and Design (SUTD) who devised a solution to a unique problem — rescuing falcon eggs from a deep niche high up in the OCBC Centre.



Scan to read more of their story.



Rifle Range Nature Park underwent habitat enhancement works to transform the former quarry into a freshwater habitat for wetland animals and migratory birds. It is also Singapore's first net-positive energy nature park, with its installed photovoltaic solar panels harvesting more energy than the site is expected to consume annually in operations.

## Designs That Set the Standard

Singapore's green spaces continue to set global standards for sustainable landscape design and ecological stewardship, earning prestigious accolades for three landmark projects in 2024.

Villa Verde Park received an Honourable Mention at the 2024 International Federation of Landscape Architects Awards. Its innovative extension transformed unused space beneath the Kranji Expressway into a vibrant, community-designed green hub featuring a nature playgarden, communal spaces, and amenities shaped by residents' feedback. It also integrates sustainable technologies such as a rain garden for groundwater filtration and bioswales for naturalised drainage. The park demonstrates how thoughtful, inclusive design and smart environmental solutions can revitalise urban landscapes and foster stronger community connections.

At the Singapore Botanic Gardens, the National Orchid Garden's Sembcorp Cool House was

recognised at the IES Sustainability Awards 2024 for its innovative approach to conserving rare orchids and advancing taxonomic research, while optimising energy efficiency and enhancing visitor experience. Developed by an NParks-led team, the state-of-the-art glasshouse emulates a high-elevation montane forest, maintaining cool temperatures to support over 1,000 rare orchid species and hybrids. Energy-efficient installations include spectrally selective glass that optimises sunlight while reducing cooling needs, as well as solar panels to offset energy requirements, reducing energy usage by about 30% compared to previous systems.

Rifle Range Nature Park was distinguished with the 2024 Urban Land Institute Asia Pacific Award for Excellence in the Open Space category. The accolade highlights the seamless integration of ecological regeneration, landscape design, and heritage conservation within the park. Its design features restored forest and wetland habitats, trails, and over 255,000 native plants, while its solar panels make it Singapore's first net-positive energy nature park — truly embodying the City in Nature vision.



Senior Manager, Horticulture Excellence and Nursery Management at NParks, Vicky Lim leads a HortChamps workshop about new edible plants at Pasir Panjang Nursery (left) while Mr Danny Cox, a visiting fellow from Longwood Gardens, Pennsylvania, shares his knowledge on water lilies (right).

## Upholding Industry Excellence

NParks continues to collaborate with our key industry partners and stakeholders like NParks-Industry Council (NIC), Landscape Industry Association (Singapore) (LIAS) and the Singapore Institute of Landscape Architects (SILA) on the Landscape Sector Transformation Plan, now in its fifth year. Their collective contributions are helping to uplift the landscape industry by strengthening professional competencies, driving technology adoption, and enhancing industry practices and standards.

Specifically, NParks is partnering LIAS and SILA to share best practices in areas such as tree management, urban greenery and sustainability. Such collaborations allow NParks to draw on the expertise of industry practitioners while upskilling the local landscape and arboricultural sectors, so as to grow a new generation of talent to manage green spaces in Singapore. LIAS represents professionals from the landscape sector and promotes professionalism and quality in landscape products and services, while SILA advances the science and art of landscape architecture alongside seeking to maintain a high standard of professional practice.

## Supporting Staff Development

To ensure that NParks officers remain capable of advancing Singapore's City in Nature vision, each officer's development is guided by a competency framework that covers the essential skills and knowledge required for different job scopes. Through the Centre for Urban Greenery and Ecology (CUGE), officers receive specialised training aligned with the competency roadmaps, covering core domains such as arboriculture, horticulture, veterinary science and animal management. Specialist functions such as investigations and enforcement also receive appropriate training to facilitate the execution of their roles.

The NParks Capability Development Fund was also introduced to further the learning and development of support staff. The fund will support additional training needs and facilitate the deepening of officers' competencies through initiatives including overseas professional attachments, conferences, and learning journeys or trips that provide a breadth of learning beyond Singapore.

To further support knowledge sharing, a series of talks and workshops was organised, including HortChamps, Science & Technology Colloquiums and Brown Bag talks. These sessions allow staff to share their own expertise and experiences with other colleagues for mutual learning.

# GARDEN CITY FUND



## Message from the Chairman

As I reflect on 2024, I am deeply moved by the extraordinary support from our corporate and individual partners in bringing our City in Nature vision to life. Your passion and dedication have created a lasting impact on our urban landscapes, enriched our biodiversity, and brought people closer to nature in ways we could only imagine.

It has been particularly heartening to witness the completion of beautiful new spaces that invite our community to connect with nature. The serene Water Lily Garden at Jurong Lake Gardens, made possible through Micron Technology's generosity, and the invigorating Keppel Coastal Trail at Labrador Nature Park, realised through our cherished partnership with Keppel Care Foundation, testify to how meaningful corporate partnerships can transform our natural spaces.

I am touched by the tremendous support for our marine conservation efforts. The enthusiastic response to the 100k Corals Initiative and the second phase of our Comprehensive Marine Biodiversity Survey has been truly inspiring. Through the OCBC Seagrass Restoration Project, we are not just rehabilitating vital habitats — we are nurturing a legacy of environmental stewardship that will benefit generations to come.

The Singapore Garden Festival 2024 holds a special place in our hearts as our first major gathering with various partners since 2018. It was wonderful to reconnect with so many familiar faces and forge new friendships while celebrating Singapore's horticultural achievements together.

Our growing community of supporters continues to inspire. The Pet Cat Sterilisation Support programme, supported by donors like Ms Dawn Kua, Mr Vincent Toe and many others, demonstrates how individual actions can create

meaningful change in urban animal management. We are equally encouraged by our regular donors on the Giving.sg platform, whose sustained contributions show that building our City in Nature is truly a shared endeavour where every contribution makes a difference.

Looking ahead, biodiversity conservation remains our key priority as we address climate challenges. By strengthening our research capabilities, implementing nature-based solutions, and expanding citizen science programmes, we are building a more resilient future for Singapore.

Our ongoing initiatives — from expanding Therapeutic Gardens to advancing marine conservation and promoting harmonious human-wildlife coexistence — reflect our holistic approach to environmental stewardship. These efforts not only enhance our natural heritage but also contribute to our community's well-being and our city's sustainability.

I invite you to continue partnering with us on this important journey. Together, we can realise our City in Nature vision, creating a Singapore where future generations will continue to benefit from and be inspired by our rich natural heritage.



**Guy Harvey-Samuel**

## About the Garden City Fund

**Charity Registration Number/  
Unique Entity Number: T02CC1634C**

**Charity Registration Date: 19 November 2002**

**IPC Number: IPC000104**

**Auditor: Foo Kon Tan LLP**

The Garden City Fund (GCF) is a registered charity and an Institution of a Public Character (IPC), with its registered address at the National Parks Board, Singapore Botanic Gardens, 1 Cluny Road, Singapore 259569.

It seeks to enhance the enjoyment of our City in Nature by working with corporations and individuals to support the development of amenities and special features in Singapore's green spaces; community activities and programmes that promote and enhance nature and ecology, art and culture, landscape and horticulture, animal and greenery management, animal

health and welfare, and conservation; and citizen involvement to encourage greater ownership of our City in Nature.

The Board of NParks serves as the trustee of the GCF and has appointed the GCF Management Committee to plan, develop, promote and manage the GCF in accordance with its Trust Deed.

The GCF Management Committee comprises mainly non-executive members except for the GCF Secretary. Dr Leong Chee Chiew, who was also NParks' Executive Director of National Parks, Gardens & Nature Reserves, served as Secretary from November 2012 to June 2024. Dr Yap Him Hoo, who is NParks' Deputy Chief Executive Officer, Professional Development & Services, was appointed Secretary on 13 June 2024.

Between 1 April 2024 and 31 March 2025, the total amount of cash donations through GCF was about S\$13.3 million.

## Conflict of Interest Policy

The GCF Management Committee members are required to comply with the charity's conflict of interest policy. The charity has put in place documented procedures for committee members to declare actual or potential conflicts of interest on a regular and need-to basis. Committee members also abstain from and do not participate in discussions or decision-making on matters where they have a conflict of interest.

## Whistleblowing Policy

GCF follows NParks' whistleblowing policy for reporting improper conduct and addressing concerns about possible wrongdoing or improprieties in financial or other matters within the charity.

### The 11<sup>th</sup> Garden City Fund Management Committee (1 November 2022 – 31 October 2024) for the Year in Review

| NAME                        | CURRENT APPOINTMENT         | PAST APPOINTMENT  | OCCUPATION   | MEETING ATTENDANCE |
|-----------------------------|-----------------------------|---|--|--------------------|
| Professor Emeritus Leo Tan* | Chairman                    | Chairman since 1 Nov 2006                                     | Retired  | 3/3                |
| Mr Daren Shiau              | Treasurer                   | Member since 1 Nov 2026<br>Treasurer 1 Nov 2020 – 31 Oct 2024 | Partner, Allen & Gledhill LLP  | 2/3                |
| Dr Leong Chee Chiew*#       | Secretary till 12 June 2024 | Member since 1 Nov 2012                                       | Executive Director of National Parks, Gardens & Nature Reserves and Commissioner of Parks & Recreation, NParks | 2/3                |
| Dr Yap Him Hoo              | Secretary                   | Secretary since 13 Jun 2024                                   | Deputy Chief Executive Officer, Professional Development & Services, NParks                                    | 2/2                |
| Mr Gerald Tan               | Member                      | Member since 1 Nov 2020                                       | Executive Director of Business Selection, Reputational Risk and Conflicts, UBS Global Banking                  | 3/3                |
| Mr Goh Kong Aik             | Member                      | Member since 1 Nov 2014<br>Treasurer 1 Nov 2016 – 31 Oct 2020 | Retired  | 3/3                |
| Mr Guy Harvey-Samuel        | Member                      | Member since 1 Nov 2022                                       | Retired  | 2/3                |
| Mr Han Jok Kwang            | Member                      | Member since 1 Nov 2020                                       | Business Development Advisor, Schneider Electric   | 3/3                |
| Mrs Kirtida Mekani*         | Member                      | Member since 1 May 2005                                       | Director, CISTECH International Pte Ltd  | 3/3                |

### The 12<sup>th</sup> Garden City Fund Management Committee (1 November 2024 – 31 October 2026) for the Year in Review

| NAME                    | CURRENT APPOINTMENT | PAST APPOINTMENT  | OCCUPATION  | MEETING ATTENDANCE |
|-------------------------|---------------------|---|---|--------------------|
| Mr Guy Harvey-Samuel    | Chairman            | Member since 1 Nov 2022                                       | Retired   | 1/1                |
| Mr Goh Kong Aik*        | Treasurer           | Member since 1 Nov 2014<br>Treasurer 1 Nov 2016 – 31 Oct 2020 | Retired   | 1/1                |
| Dr Yap Him Hoo          | Secretary           | Secretary since 13 Jun 2024                                   | Deputy Chief Executive Officer, Professional Development & Services, NParks | 1/1                |
| Mr Daren Shiau          | Member              | Member since 1 Nov 2016<br>Treasurer 1 Nov 2020 – 31 Oct 2024 | Partner, Allen & Gledhill LLP   | 1/1                |
| Mr Han Jok Kwang        | Member              | Member since 1 Nov 2020                                       | Business Development Advisor, Schneider Electric                            | 1/1                |
| Mr Ho Hin Wah           | Member              | Member since 1 Nov 2020                                       | Chief Investment Officer, Genedant Capital                                  | 1/1                |
| Ms May Loh              | Member              | Member since 1 Nov 2024                                       | Partner & Singapore Office Head, Albright Stonebridge Group                 | 1/1                |
| Ms Shantini Ramachandra | Member              | Member since 1 Nov 2024                                       | Retired   | 1/1                |

Professor Emeritus Leo Tan (Chairman, 1 Nov 2006 – 31 Oct 2024) is Adviser to the Garden City Fund.

# Dr Leong Chee Chiew passed away on 12 June 2024.

\* These members have continued to serve for more than 10 consecutive years. Their wealth of knowledge, services and expertise has guided the charity in reaching out to corporates and individuals for funding support, and ensured sound governance of the charity. As professionals in their own right, they have also contributed to a balanced composition in the committee, with a diverse mix of backgrounds and experience to meet the growing needs of the charity.

## Shaping a Greener Singapore

In the reporting year, GCF celebrates the efforts and strong commitment of corporate partners and passionate individuals, who each play a vital role in realising the vision of transforming Singapore into a City in Nature. Together, GCF has made meaningful progress in rejuvenating our green spaces, advancing conservation efforts, and strengthening bonds within our community.

## Enriching Green Spaces

Strong community partnerships continue to drive the charity's work, with new projects enhancing both conservation and public access to green spaces. 2025 saw the official opening of the Keppel Coastal Trail at Labrador Nature Park, a new eco-friendly recreational space developed through a generous \$1 million contribution from **Keppel Care Foundation**. As part of the Forest Restoration Action Plan, this trail provides a vital buffer for the adjacent coastal hill forest, one of Singapore's last remaining patches of such habitats. Since 2020, Keppel has also contributed to the OneMillionTrees movement with a \$3 million pledge to plant 10,000 trees — nearly 8,000 of which have already been planted, with the support of over 350 Keppel staff volunteers. This includes 3,800 trees in the Labrador Nature Reserve and Labrador Nature Park along the Keppel Coastal Trail. These projects reflect Singapore's commitment to enhancing nature-based recreation, fostering an appreciation for biodiversity, and strengthening community stewardship in its City in Nature vision.



The Keppel Coastal Trail passes through a restored coastal beach forest habitat, offering visitors scenic views while strengthening ecological resilience.

In the west, Jurong Lake Gardens welcomes the new Water Lily Garden, featuring a smart water management system made possible by **Micron Technology's** \$1 million donation. The revitalisation of the Chinese and Japanese Gardens, located

within Jurong Lake Gardens, was further enriched through the philanthropic support of **Mr Jimmy Koh** and **Mr Han Jok Kwang**, enabling visitors to enjoy recreation in nature.



The sustainable infrastructure of the Water Lily Garden ensures the long-term vitality of the garden's aquatic ecosystems.

In a pioneering sustainability milestone, the historic Holttum Hall at the Singapore Botanic Gardens has become the Gardens' inaugural net-zero heritage building through innovative energy solutions. The landmark achievement was cemented with Southeast Asia's first hybrid hydrogen fuel cell battery system, a cutting-edge solution implemented by **Superduper Energy** in partnership with **Temasek Foundation** through GCF.



**Mr Ho Tong Yen**, Chief Sustainability Officer of Keppel Ltd. and CEO of Keppel Care Foundation, leads the company's sustainability and green initiatives. The company's contributions to Singapore's greening efforts have enabled the community to enjoy more nature-based recreation, especially in the Keppel Bay area.



Scan to read more of their story.

## Sculpting Legacy

The *Scholars in Conversation: Sir Stamford Raffles & Dr Nathaniel Wallich* sculpture at Fort Canning Park, unveiled in May 2024, stands at the site of Singapore's first botanical garden. It celebrates the scholars' pioneering contributions in establishing the early botanical collections that would shape Singapore's rich horticultural legacy. The artwork was commissioned by the University of East Anglia Alumni (Singapore Chapter) and generously donated by **the Estate of Mr and Mrs Tan Chee Kow** through GCF.

## Conserving Marine Life

Together with partners, GCF has championed marine biodiversity through innovative conservation projects. The Comprehensive Marine Biodiversity Survey II commenced in 2024, expanding research into previously unstudied marine ecosystems with over \$2 million in donor support from **Dalio Philanthropies, GSK-EDB Trust Fund, HSBC and ExxonMobil Asia Pacific**.

In partnership with the Lee Kong Chian Natural History Museum and the National University of Singapore's Tropical Marine Science Institute, the initiative exemplifies how ecosystems and climate resilience are strengthened through uniting academic expertise, private funding and citizen engagement.

Concurrently, NParks launched Singapore's most extensive coral restoration effort, the 100k Corals Initiative, to restore degraded reefs by planting 100,000 corals in our waters. The programme was made possible by the support and donations of key partners such as **Delta Electronics, GSK-EDB Trust Fund, Deutsche Bank, Takashimaya Singapore** and **KPI OceanConnect** through GCF.

A cornerstone of this initiative is the NParks-Delta Corals Research Programme, which integrates smart technology into coral cultivation efforts. Leveraging Delta Electronics' expertise in automation, the programme deploys an intelligent aquaculture system at the St John's Island facility to monitor and optimise water conditions, such as temperature, flow, and water quality, in real time. This innovation shields corals from environmental stressors like ocean warming during cultivation, while enabling remote data tracking for swift intervention.



Professor Emeritus Leo Tan (left), Mr Lionel Ng, Research Fellow at NUS (centre) and then-Minister for National Development and Minister-in-charge of Social Services Integration Desmond Lee (right) took part in a coral planting activity at the coral culture facility at NParks' Marine Park Outreach and Education Centre on St John's Island, to mark the launch of the 100k Corals Initiative.

These initiatives represent a significant scaling-up of restoration efforts, with the St John's Island National Marine Laboratory providing critical research support to enhance the resilience of Singapore's precious marine ecosystems.



Seagrass meadows play a vital role as blue carbon ecosystems, capable of storing up to 40 times more carbon than tropical rainforests. These underwater meadows serve as critical nature-based solutions, protecting coastlines from erosion while supporting rich marine biodiversity.

NParks also worked with its long-term partner **OCBC** to initiate Singapore's first seagrass restoration and research pilot, which aims to develop effective methods for seagrass restoration locally. This three-year research programme — OCBC's fourth climate action collaboration with NParks — aims to understand seagrass reproduction and research transplantation techniques, informing future strategies to strengthen these vital blue carbon habitats that protect coastlines and store carbon.

## Safeguarding Natural Heritage

Research and innovation thrive through collaboration, showing how shared goals and partnerships in conservation and technology can drive lasting, scalable change. **Aramco Asia Singapore** played a pivotal role in advancing botanical research by funding the digitisation of 800,000 herbarium specimens at the Singapore Botanic Gardens' SING Herbarium. Its significant donation kickstarted the creation of Southeast Asia's largest digital plant database — a transformative project that preserves fragile botanical history, enables global collaboration and provides open access to critical biodiversity data.



Once the digitisation of the Herbarium is complete, the integrated digital repository will empower researchers worldwide to conduct studies more efficiently while safeguarding irreplaceable specimens for future generations.

A \$10,000 donation from **OCBC** enabled NParks researchers to install a custom nesting tray with loose gravel for a pair of breeding Peregrine Falcons at OCBC Centre. CCTV cameras were also installed to monitor the birds' behaviour. These modifications to the birds' nesting area led to two Peregrine Falcon chicks hatching in April 2025.

## Powering Progress

Passionate individuals make a difference in Singapore's green transformation through their support of the Garden City Fund. New connections were made with donors **Ms Dawn Kua** and **Mr Vincent Toe**, who contributed \$50,000 and \$30,000 respectively to the Pet Cat Sterilisation Support programme, supporting responsible pet management. Meanwhile, **Mr Fan Li**, a regular visitor to the Singapore Botanic Gardens, supported horticultural excellence by donating \$15,000 to the Give to the Gardens programme, a gift tripled to \$45,000 through a matching grant by his company, **Warburg Pincus**. Long-time friend of the Singapore Botanic Gardens, **Dr Rosslyn Leong**, also continued to support the Gardens' work with her generous donations.



The Singapore Garden Festival incorporated a stunning array of designer gardens, each masterfully blending the restorative benefits of greenery with artistic vision.

## Strengthening Outreach

The Singapore Garden Festival 2024 showcased how donor-supported initiatives bring people closer to nature while advancing horticultural excellence. Its 9<sup>th</sup> edition featured close to 40 stunning displays by 44 designers, alongside community-driven competitions, with the help of generous sponsors including **Suntec Singapore, Takashimaya Singapore, Pan Pacific Singapore** (Official Hotel Partner), **Noi Gardens, Stellar Lifestyle, Comvita, Luzerne, Suntec City, Oasis Floral Products, Risis, Sistic** and **Wine Farm**. These efforts not only nurture local talent but also foster pride in shared green spaces, demonstrating how partnerships transform Singapore into a vibrant City in Nature.

The 8<sup>th</sup> Global Botanic Gardens Congress, co-hosted by the Singapore Botanic Gardens and Botanic Gardens Conservation International, came to life with the benevolent support of sponsors such as **Korea National Arboretum, GSK, Dr Rosslyn Leong, The Morton Arboretum, GenZero, Atlanta Botanical Garden, Montgomery Botanical Center, Mr Tan Jiew Hoe, Naples Botanical Garden,** and **Esri Singapore**. The Congress also saw the launch of the Southeast Asia Plant Phenology Network, initiated by the Singapore Botanic Gardens to unite regional gardens in long-term climate impact studies.

The Plant-A-Tree Programme exemplifies how strong corporate partnerships amplify the impact of the OneMillionTrees movement. New partners, such as **Disney, Endress+Hauser, Raffles Hotel Singapore** and **Singapore Maritime Foundation** have accelerated this momentum. Since 2007, over 890 corporations and 6,690 individuals have contributed to planting over 89,900 trees, with support from more than 147,300 participants in greening efforts.

Beyond horticulture, GCF supports impactful programmes like the Pet Cat Sterilisation Support programme, which promotes responsible pet ownership and animal welfare. Having received tremendous support from both individual donors and organisations such as **Temasek Foundation, the Estate of Essery Gerald Stephen (executed by Dr Tan Hwa Luck)** and **MARS Petcare**, this initiative reflects the power of community partnerships in addressing urban challenges.



The Pet Cat Sterilisation Support programme supports the sterilisation and microchipping of pet cats in lower-income households.



NParks remains dedicated to furthering our goal of enhancing therapeutic gardens and therapeutic horticulture in the coming year.

## The Year Ahead

GCF will remain steadfast in its mission to build a greener, more climate-resilient Singapore through stronger corporate partnerships and broader community engagement across its conservation initiatives. At Khatib Bongsu and Pulau Ubin, nature-based solutions will combat coastal erosion while restoring habitats. The Comprehensive Marine Biodiversity Survey II and the 100K Corals Initiative will continue to safeguard our marine ecosystems, while therapeutic gardens and therapeutic horticulture programmes weave nature into community well-being. NParks is also committed to moving forward with responsible pet ownership initiatives to foster harmonious living with the animal friends in our neighbourhoods.

These initiatives reflect GCF's commitment to strengthen corporate-community partnerships in service of our shared environmental vision. By bridging meaningful connections between people and nature, GCF cultivates sustainable engagement that benefits both Singapore's ecosystem and its stewards. For more information, please visit [www.gardencityfund.gov.sg](http://www.gardencityfund.gov.sg).



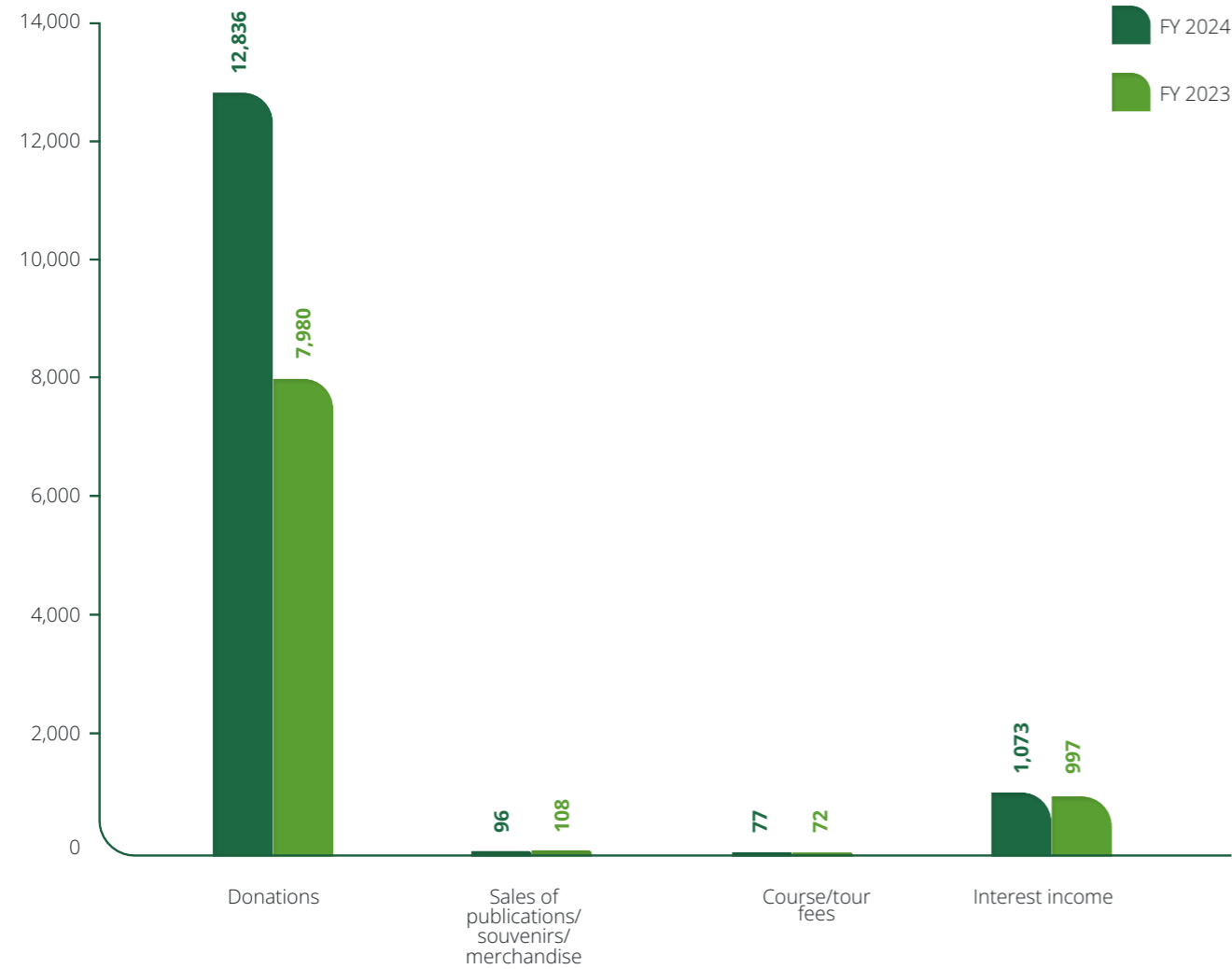
Scan to visit the GCF website.

# GARDEN CITY FUND'S FINANCIAL REVIEW

## Income

The income comprised mainly donations and interest income. The income for the year was \$14.08 million. The increase from last year's income was mainly due to an increase in donation income.

### FY 2024 vs FY 2023 Operating Income

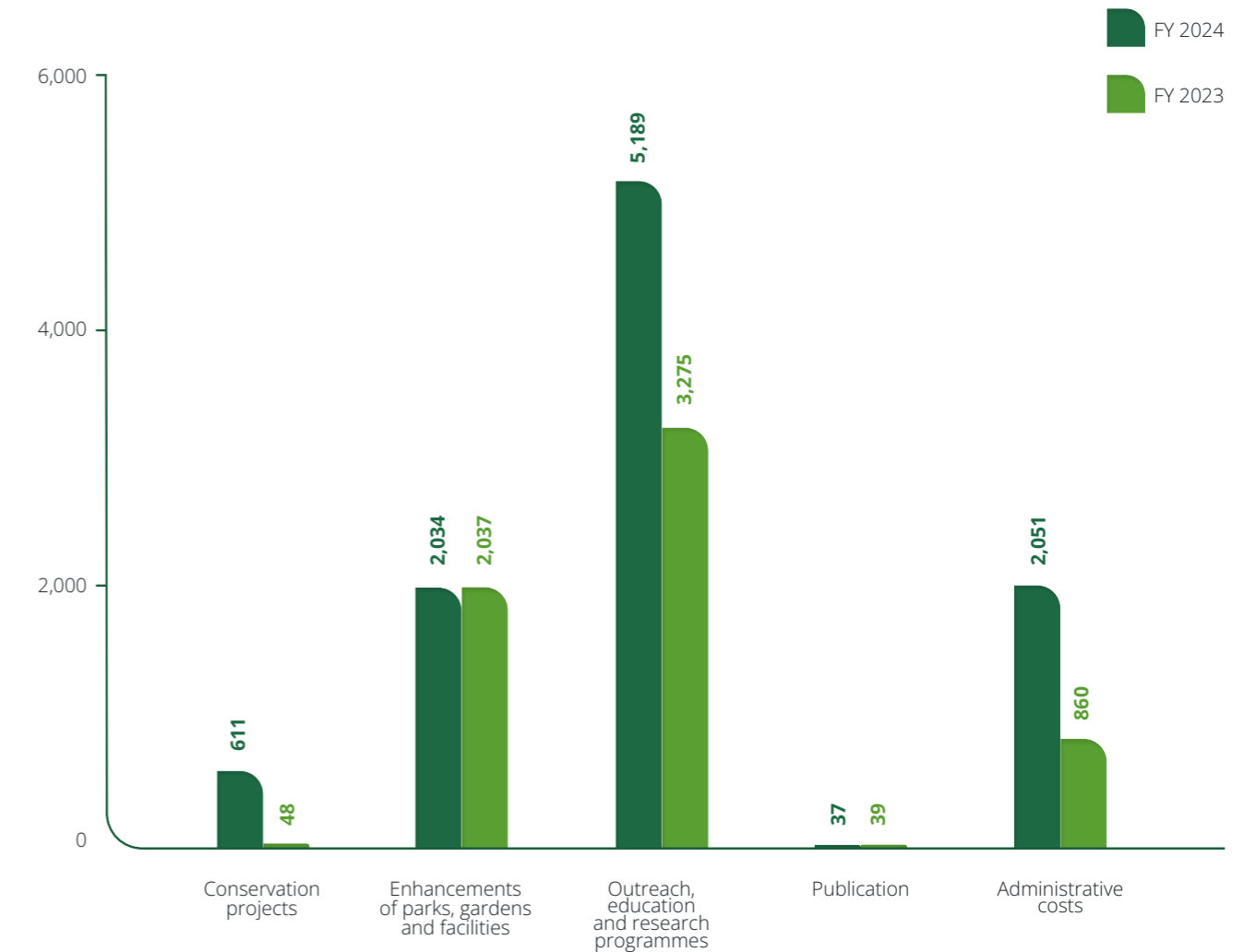


| INCOME                                      | FY 2024 \$'000 | FY 2023 \$'000 | INCREASE / (DECREASE) \$'000 | % CHANGE  |
|---|----------------|----------------|------------------------------|-----------|
| Donations                                   | 12,836         | 7,980          | 4,856                        | 61        |
| Sales of publications/souvenirs/merchandise | 96             | 108            | (12)                         | (11)      |
| Course/tour fees                            | 77             | 72             | 5                            | 7         |
| Interest income                             | 1,073          | 997            | 76                           | 8         |
| <b>TOTAL</b>                                | <b>14,082</b>  | <b>9,157</b>   | <b>4,925</b>                 | <b>54</b> |

## Operating Expenditure

The expenditure for the year was \$9.92 million, which is 59% higher compared to last year's operating expenditure of \$6.26 million. The increase was due to an increase in outreach, education and research programmes, and matching expenses for in-kind donation.

### FY 2024 vs FY 2023 Operating Expenditure

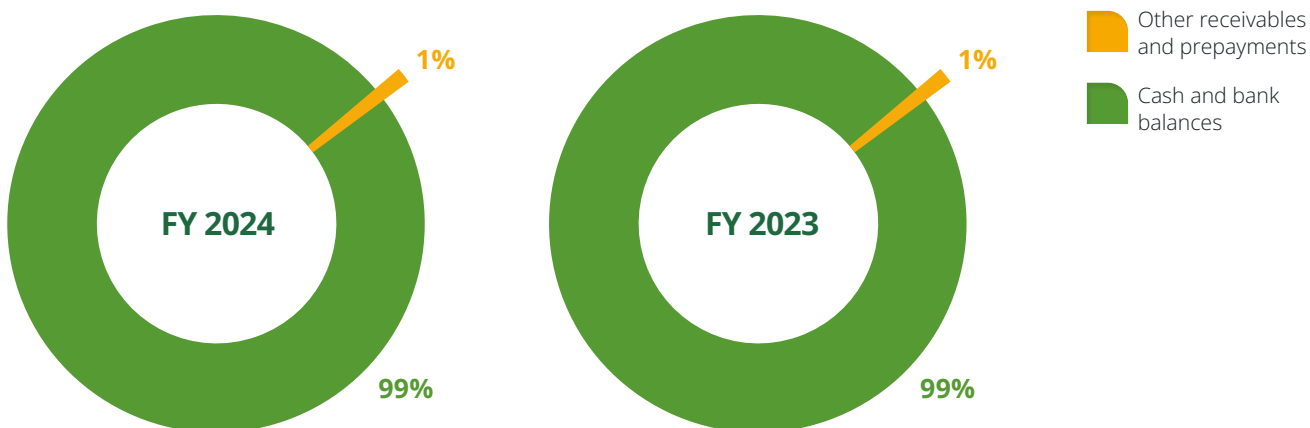


| EXPENDITURE                                   | FY 2024 \$'000 | FY 2023 \$'000 | INCREASE / (DECREASE) \$'000 | % CHANGE  |
|---|----------------|----------------|------------------------------|-----------|
| Conservation projects                         | 611            | 48             | 563                          | 1,172     |
| Enhancements of parks, gardens and facilities | 2,034          | 2,037          | (2)                          | (1)       |
| Outreach, education and research programmes   | 5,189          | 3,275          | 1,914                        | 58        |
| Publication                                   | 37             | 39             | (2)                          | (5)       |
| Administrative costs                          | 2,051          | 860            | 1,191                        | 138       |
| <b>TOTAL</b>                                  | <b>9,923</b>   | <b>6,259</b>   | <b>3,664</b>                 | <b>59</b> |

## Financial Position

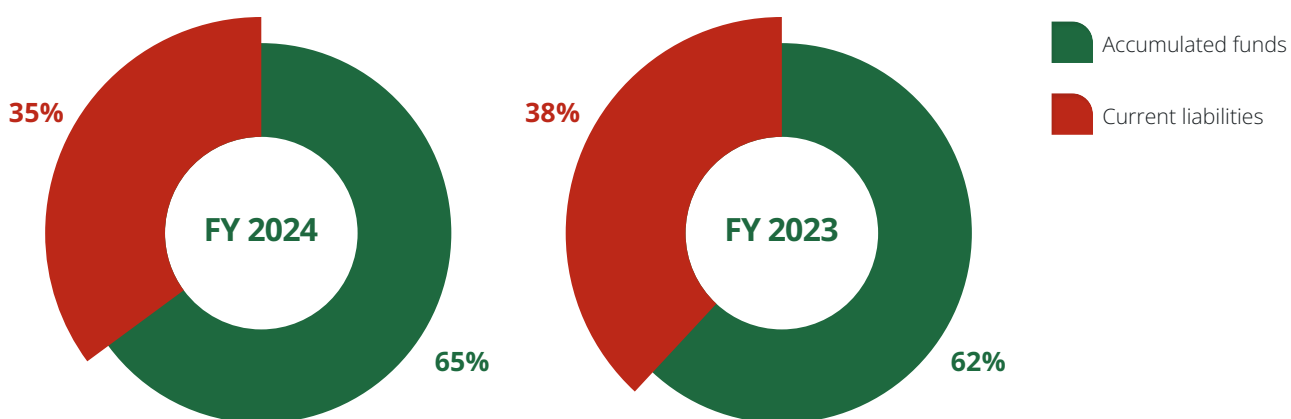
As at 31 March 2025, the total assets stood at \$45.49 million, an increase of 12% from last year. Accumulated funds stood at \$29.59 million, while current liabilities stood at \$15.89 million.

### Total Assets



| ASSETS                            | FY 2024<br>\$'000 | FY 2023<br>\$'000 | INCREASE / (DECREASE)<br>\$'000 | % CHANGE  |
|-----------------------------------|-------------------|-------------------|---------------------------------|-----------|
| Other receivables and prepayments | 376               | 445               | 69                              | 16        |
| Cash and bank balances            | 45,109            | 40,329            | 4,780                           | 12        |
| <b>TOTAL</b>                      | <b>45,485</b>     | <b>40,744</b>     | <b>4,711</b>                    | <b>12</b> |

### Total Equity & Liabilities



| ACCUMULATED FUNDS AND LIABILITIES | FY 2024<br>\$'000 | FY 2023<br>\$'000 | INCREASE / (DECREASE)<br>\$'000 | % CHANGE  |
|-----------------------------------|-------------------|-------------------|---------------------------------|-----------|
| Accumulated funds                 | 29,594            | 25,436            | 4,158                           | 16        |
| Current liabilities               | 15,891            | 15,337            | 554                             | 4         |
| <b>TOTAL</b>                      | <b>45,485</b>     | <b>40,773</b>     | <b>4,712</b>                    | <b>12</b> |

# GARDEN CITY FUND DONOR'S ACKNOWLEDGEMENT FY2024

We acknowledge and thank the following donors who have generously supported our City in Nature efforts, including those who wish to remain anonymous.

## \$51 million and above

- Aramco Asia Singapore Pte Ltd
- GSK-EDB Trust Fund
- Oversea-Chinese Banking Corporation Limited
- Peter Lim

## \$5100,000 and above

- AIA Singapore
- City Developments Limited
- Delta Electronics Int'l (Singapore) Pte Ltd
- Equinix Singapore Pte Ltd
- Google Asia Pacific Pte Ltd
- Keppel Care Foundation
- Leong Sou Fong Rosslyn
- LU Foundation Ltd
- Micron Semiconductor Asia Operations
- The Hongkong and Shanghai Banking Corporation Limited

## \$510,000 and above

- Advantest (Singapore) Pte Ltd
- AIA Investment Management Pte Ltd
- Allianz Global Investors Singapore Limited
- Almarc Engineering Pte Ltd
- Amgen Singapore Manufacturing Pte Ltd
- Anziani Eric Paul Andre
- Archer Danials Midland Company
- Beach Road Hotel
- Bijjala Radhakrishna
- Carbon Solutions Services Pte Ltd
- Cargill Asia Pacific Holdings Pte Ltd
- Carrier Singapore (Pte) Limited
- China Aviation Oil (Singapore) Corporation Ltd
- Citibank Singapore
- CMA-CGM Asia Pacific Limited
- Coach Operations Singapore Pte Ltd
- Cotton On Singapore Pte Ltd

- DBS Bank Ltd
- Deutsche Bank AG
- DKSH Singapore Pte Ltd
- DoubleVerify Pte Ltd
- Dymon Asia Capital
- Edrington Singapore Pte Ltd
- Endress+Hauser (S.E.A.) Pte Ltd
- Exxonmobil Asia Pacific Pte Ltd
- Fan Li
- FIL Investment Management (Singapore) Limited
- Fullerton Healthcare Group Pte Ltd
- Fung Yuit Leng Juanna-Gaby
- Geneco
- Huttons Asia Pte Ltd
- Iconic Locations Singapore Pte Ltd
- Infineum Singapore LLP
- Kao Singapore Private Limited
- KeaWorld Pte Ltd
- Kingspan Insulated Panels Pte Ltd
- KLA Foundation
- Korea National Arboretum
- KPI OceanConnect Global Accounts Pte Ltd
- KPI OceanConnect Pte Ltd
- Kua Su-Wen Dawn
- Kulicke & Soffa Pte Ltd
- Kumiai Navigation Pte Ltd
- Kyndryl (Singapore) Pte Ltd
- Lam Research Singapore Pte Ltd
- L'tria Private Limited
- Lucky Joint Construction Pte Ltd
- Lukasz Pienkowski
- Malini Rajendran
- Mayer Marketing Pte Ltd
- Mediacorp Pte Ltd
- MHC Medical Network Pte Ltd
- Mitsubishi Corporation RTM International Pte Ltd
- MOH Holdings Pte Ltd
- Nature Society Singapore
- Noel Gifts International Ltd
- Ocean Network Express (Singapore) Pte Ltd
- Olympia Diary (S'pore) Pte Ltd
- Open Text (Asia) Pte Ltd
- Ou Tsung Ming and Ou Chen Li Chin
- OVOL Singapore Pte Ltd
- Panasonic Asia Pacific Pte Ltd
- Paul Anantharajah Tambyah

- Performance Motors Limited
- PetroChina International (Singapore) Pte Ltd
- PXL Consulting Pte Ltd
- QBE Insurance (Singapore) Pte Ltd
- RF360 Singapore Pte Ltd
- Ripple Labs Inc
- Robeco Singapore Pte Ltd
- Schroder Investment Management (Singapore) Ltd
- Senses Marketing Communications & Design Pte Ltd
- Shanghai Pudong Development Bank Co, Ltd
- Shell Group of Companies
- Sheng Siong Supermarket Pte Ltd
- Singapore Life Ltd
- Singapore Power Limited
- ST Engineering IHQ Pte Ltd
- ST Logistics Pte Ltd
- Sun Venture Pte Ltd
- Sunrate Pte Ltd
- Tan Jiew Hoe
- Tan Kwang Hwee
- Teambuild Engineering & Construction Pte Ltd
- Teknor Apex Asia Pacific Pte Ltd
- Temasek Capital Management Pte Ltd
- TF IPC Ltd
- The Estate of the Late Allen Henry Neville Molesworth
- The Morton Arboretum
- The PwC Singapore Foundation
- The Walt Disney Company Southeast Asia Pte Ltd
- Thekchen Choling Singapore Ltd
- Toe Teow Heng
- Wah Loon Engineering Pte Ltd
- Warburg Pincus Singapore Pte Ltd
- WhiteCoat Holdings Pte Ltd
- Woh Hup (Private) Limited

## Below \$10,000

- 360 Communications Pte Ltd
- AET Tankers Pte Ltd
- Affinidi Pte Ltd

- AGC Multi Material Singapore Pte Ltd
- Agency Leaders Management Association of AIA Singapore
- Amanda Toh-Steckler
- America II Asia Pte Ltd
- Annie Heng
- Arena Media Asia Pte Ltd
- A-Star Testing & Inspection (S) Pte Ltd
- AstraZeneca Singapore Pte Ltd
- Atlanta Botanical Garden
- Bae Systems Applied Intelligence (Asia Pacific) Pte Ltd
- Berge Bulk Singapore Pte Ltd
- Beverly Ong
- Bridgestone Asia Pacific Pte Ltd
- Buddha's Light Association (Singapore)
- Cantonment Primary School
- Century Commodities Solution Pte Ltd
- Chan Shao-Wah Georgette Geraldine
- Chee Junmin Lester
- Cheong Kakit
- Cheung Le Kai Marcus
- Chia Wen Xing
- Choong Way Min Gregory Gerard
- Chua Buck Yong
- Chua Wun Fong
- Claudio Nuno De Castro Ribeiro
- Clearstream Banking S.A.
- Daiichi Sankyo Singapore Pte Ltd
- Delteq Pte Ltd
- Ding Qiang
- Discover the World Marketing Pte Ltd
- Distillery SG Pte Ltd
- Du Shuchun
- Eastern Pacific Shipping Pte Ltd
- EBM-PAPST SEA Pte Ltd
- Elisabeth Clarice Esther Gustava De Rothschild
- Emergent Capital Partners Pte. Ltd
- Eneos ItalSing Pte Ltd
- Esri Singapore Pte Ltd
- Eva Tan
- Evergreen Marine (Asia) Pte Ltd
- Fairy Holdings Pte Ltd
- Fo Guang Shan (Singapore)
- Foo Siang Keng
- Fu Xiang Construction Pte Ltd
- Golden Sands Construction & Engineering Pte Ltd
- Growthops Pte Ltd
- Hakuhodo Singapore Pte Ltd
- HICC Pte Ltd
- HP Wealth Management (S) Pte Ltd
- Infold Pte Ltd
- iXchange Pte Ltd

- Jayanthi D/O Ponnasamy
- Kaisavapany S/O Krishnasamy
- Karen Lim
- Khoo Ming Tsui Stella
- Klive Asia Pte Ltd
- Kng Wei Qi Jeremy
- KOSÉ Singapore Pte Ltd
- Lau Peh Peh
- Lee Foundation
- Lee Kien Yong Dominic
- Lee Ti Seng Desmond
- Leow Boon Tuan
- LHN Space Resources Pte Ltd
- Lim Bee Choo
- Lim Chee Kian
- Lim Chee Kiat
- Lin Junrun
- Lin Li
- Lin Rongjiang
- LNH Space Resources Pte Ltd
- Loe Kwee Eng Hilda
- Loo Kee Hock Michael
- Luba Marine Survey Private Limited
- Lynux Shipping Bulk Pte Ltd
- Ma Xiaolong
- Metech Recycling Pte Ltd
- Michelman Asia-Pacific Pte Ltd
- Montgomery Botanical Center
- Nalwa Mandeep Singh
- Naples Botanical Garden
- Ng Jia Wei
- Ng Keng Hooi
- Ng Man Hop
- Ng Wei Yong
- Ng Yong Sheng
- Ngiam Juyong
- Ngien Hoon Ping
- Nizam Muddin Gafoor
- Novel Energy Trading Pte Ltd
- Oh Poh Lin
- Omega Integration Pte Ltd
- Orange Business Services Singapore Pte Ltd
- Pacific Carriers Limited
- Pacific International Lines (Pte) Ltd
- Pan Pacific Hotels and Resorts Pte Ltd
- Parthiban S/O Murugaiyan
- Pascal Michel Francois Bergougnou
- Penta-Ocean Construction Co. Ltd
- Phua Choon Hua Simon
- Print Lab Pte Ltd
- PSA Corporation Limited
- Rapid Offshore & Marine Pte Ltd
- Rijke Power Pte Ltd
- Roger Elmer Wolf
- Samway Hydraulics Pte Ltd
- Sato Asia Pacific Pte Ltd
- Seatrium Limited

- SGG Offshore & Marine Consultant Pte Ltd
- Shen Jialing Jeslyn
- Sheng Chaohua
- Shin Kim Peow
- Siemens Bank GmbH Singapore Branch
- Singapore FOZL Group Pte Ltd
- Singapore Maritime Foundation
- Singapore Shipping Association
- Siow Hong Peng
- ST Divers Technics Pte Ltd
- ST Engineering Defence Aviation Services Pte Ltd
- STT Tai Seng Pte Ltd
- Sun Lin
- Sunningdale Tech Ltd
- Sunseap Group Pte Ltd
- Tajaram Muralli Raja
- Takashimaya Singapore Ltd
- Tan Cheng Soon
- Tan Jianhan Jerel
- Tan Kah Heng
- Tan Lin Teck
- Tan Qi En
- Tan Shi Jack
- Tan Si Ling
- Tan Soon Hock Paul
- Tanaka Kiyotaka
- Tang Jia Hao
- Tay Hock Jin Alvin
- Telok Ayer Chinese Methodist Church
- The UFO Traveler Pte Ltd
- Thirumalai Chandran @ T Chandroo
- Thng Hong Foo Kenneth
- Tiong Ying Ling
- TMRW Pte Ltd
- Tokyo Electron Singapore Pte Ltd
- Tomson Siddik
- Toyota Tsusho Asia Pacific Pte Ltd
- TPI Limited
- Tridex Pte Ltd
- Unearthed Productions Private Ltd
- Van Der Putten
- Wang Fuwen
- Wijaya Abori
- Wong Sze Keed
- Wong Ying Lei
- World Wide Technology
- Xu Jiening
- Xue Song
- Yap Him Kuei Warren
- Yap Tsung-Tzu Kevin
- Yap You Min
- Ye YiXiu
- Yee Lai Ching
- Yee Ming Innes
- Yokogawa Engineering Asia Pte Ltd
- Zhang Hui

# FACTS & FIGURES

## FY2024

### National Day Awards

Note: Staff appointments indicated on this page are accurate as of when the Awards were announced.

#### Public Administration Medal (Silver)

**Ms Tan Lai Kheng**  
SENIOR DIRECTOR / LIFESTYLE BUSINESS  
Park Management and Lifestyle

#### Public Administration Medal (Bronze)

**Ms Ng Li-San**  
DIRECTOR / COMMUNICATIONS  
Communications and Community Engagement

**Dr Jana Skornickova**  
KEEPER, HERBARIUM & PRINCIPAL RESEARCHER / PLANT TAXONOMY  
Singapore Botanic Gardens

**Ms Nah Bee Luan**  
DIRECTOR / JURONG LAKE GARDENS DEVELOPMENT  
Jurong Lake Gardens

**Mr Ong Yongquan**  
DIRECTOR / STREETScape (CENTRAL SOUTH)  
Streetscape

#### COMMENDATION MEDAL

**Ms Nur Sabrina Kwok @ Kwok Pui Leng**  
SENIOR MANAGER / BUDGET AND ACCOUNTS  
Finance and Procurement

**Ms Loh Chay Hwee**  
DEPUTY DIRECTOR  
Manpower Development Industry and CUGE

**Mr Loo Kah Lim**  
DEPUTY DIRECTOR / GREENERY AND DEVELOPMENT PLANNING  
Policy and Planning

**Ms Tay Rijin**  
SENIOR MANAGER / ANIMAL AND VETERINARY PROGRAMME OFFICE  
Professional and Scientific Services

**Ms Galistan Amanda Grace**  
SENIOR MANAGER / PARKS (CENTRAL NORTH)  
Parks Central

**Mr Jeremy Woon Ren Wei**  
DEPUTY DIRECTOR / INTERNATIONAL BIODIVERSITY CONSERVATION  
National Biodiversity Centre

**Mr Li Zuowei**  
SENIOR MANAGER / CONSERVATION  
Conservation

**Ms Teng Yuen Leng**  
DEPUTY DIRECTOR / CUGE  
Industry and CUGE

**Ms Ng Hwee San**  
DEPUTY DIRECTOR / HUMAN RESOURCE  
Corporate Services

#### EFFICIENCY MEDAL

**Mr Koh Sau Peng**  
MANAGER / LICENSING  
Industry Standards and Regulatory

**Mr Thant Zin Thein**  
SENIOR MANAGER / FACILITIES MANAGEMENT  
Corporate Services

**Mr Pang Joo Kang**  
MANAGER / CENTRE FOR WILDLIFE REHABILITATION  
Wildlife Management

**Ms Ho Siew Ling**  
MANAGER / STREETScape (CENTRAL SOUTH)  
Streetscape

**Ms Lauw Sok Chin**  
SENIOR OFFICER / PARKS (CENTRAL NORTH)  
Parks Central

**Mr Gwee Aik Teck**  
SENIOR OFFICER / PLANT RECORDS  
Singapore Botanic Gardens

### Long Service Medal

**Ms Pang Yoke Yue**  
SENIOR MANAGER / FESTIVALS AND SHOWS  
Singapore Botanic Gardens

**Ms Rajasawari d/o S Murugesu**  
ASSISTANT / INVESTIGATION  
Enforcement and Investigation

**Ms Chan Su Hooi**  
SENIOR OFFICER / CONSERVATION  
Conservation

**Mr Abdul Khalid bin Hamid**  
ASSISTANT OFFICER / CONSERVATION  
Conservation

**Ms Cheng Mui Kiew Jancy**  
MANAGER / CORPORATE STRATEGY AND PLANNING  
Corporate Strategy and Planning

**Mr Ng Leong Hwa Eric**  
SENIOR MANAGER / GREENERY AND DEVELOPMENT PLANNING  
Policy and Planning

**Mr Mohamad Zamani bin Yaacob**  
INSPECTOR / PLANT SCIENCE AND HEALTH  
Horticulture and Community

**Mr Goh Sze Pu Joshua**  
SENIOR OFFICER / FACILITIES MANAGEMENT  
Corporate Services

**Mr Wong Wai Sung**  
DEPUTY DIRECTOR / DEVELOPMENT MANAGEMENT  
Parks Development and Design

**Ms Lee Ke Ying Kylie**  
SENIOR OFFICER / STREETScape (CENTRAL SOUTH)  
Streetscape

**Mr Muhamad Irwan bin Sapi'i**  
SENIOR OFFICER / PARKS (SOUTH WEST)  
Parks West

**Mr Ridzuan bin Abdul Aziz**  
SENIOR EXECUTIVE / WILDLIFE MANAGEMENT AND OUTREACH  
Wildlife Management

**Ms Chee Yee Ping**  
SENIOR MANAGER / PARKS (CENTRAL SOUTH)  
Parks Central

**Ms Safiah binte Abdul Aziz**  
MANAGER / FACILITIES MANAGEMENT  
Corporate Services

**Mr Tan Fook Onn Andrew**  
ASSISTANT / SECURITY MANAGEMENT  
Singapore Botanic Gardens

**Ms Eslindah binte Ismail**  
DEPUTY DIRECTOR / PARKS (NORTH WEST)  
Parks West

**Ms Koh Ah Chin**  
DEPUTY FINANCIAL CONTROLLER/ BUDGET AND ACCOUNTS  
Finance and Procurement

**Ms Hasnah binte Ibrahim**  
MANAGER / INVESTIGATION  
Enforcement and Investigation

**Mr Norhasli bin Yusop**  
SENIOR TECHNICAL OFFICER / PLANT SCIENCE AND HEALTH  
Horticulture and Community

### Awards and Accolades

#### Excellent Service Awards

**Attractions**  
13 STAR, 4 GOLD, 16 SILVER

#### IT Awards

#### Science, Tech & Engineering (STE) Excellence Award

Awarded in recognition of "Transforming Urban Tree Management" in collaboration with SLA

#### May Day Awards 2025

Model Worker  
**Ms Sim Bee Lan**  
SENIOR MANAGER / PARKS (CENTRAL SOUTH)  
Parks Central

#### MND Ministers Award 2024

NATURE KAKIS NETWORK  
WHOLE-OF-GOVERNMENT (WOG) BIOSURVEILLANCE FRAMEWORK

#### Municipal Services Awards 2024

**Community Category**  
PET CAT STERILISATION SUPPORT (PCSS) PROGRAMME  
PEK KIO PARK: A COLLABORATIVE GREEN SPACE

**Team Category**  
TEAM ULU PANDAN  
JOINT OPS AT SIMS AVE PARK CONNECTOR AND GUILLEMARD ROAD OPEN SPACE BY NATIONAL PARKS BOARD (NPARKS) AND MINISTRY OF MANPOWER (MOM)  
PARKS NORTH EAST - PUNGGOL FIRE STATION COLLABORATION TEAM  
DEVELOPMENT OF TAMPINES BOULEVARD PARK  
PIGEON MANAGEMENT PLAN TEAM

#### PST Awards 2024

**Dare to Do Award**  
REIMAGINING NPARKS' TREE INSPECTION

#### Others

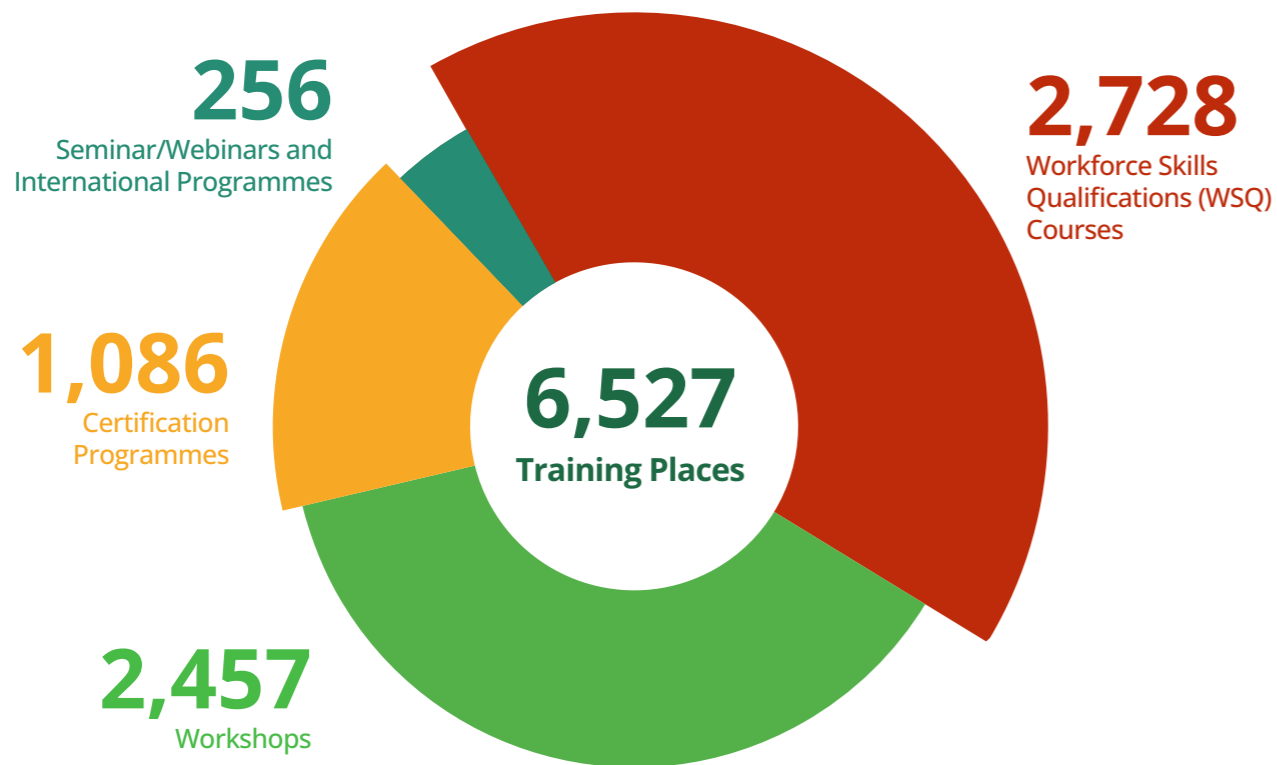
**Total Defence Award 2024**

# FACTS & FIGURES

## FY2025

### CUGE Training Programmes

The Centre for Urban Greenery and Ecology (CUGE) was established by NParks as a regional centre of excellence to advance an urban and green living environment, as well as a one-stop training and knowledge hub in urban greenery and ecology.



### Workforce Skills Qualification (WSQ) Courses

#### WSQ Courses for Landscape Workers (Level 1)

- Plant Health Management and Disease Control
- Plant Identification
- Plant Pruning

#### WSQ Courses for Landscape Technicians (Level 2)

- Chainsaw Operation and Maintenance
- Hazards and Risk Control, and Policy Management\*
- Horticultural Chemical Usage\*
- Plant Health Management and Disease Control\*
- Plant Propagation and Production
- Plant Pruning\*
- Soil and Media Assessment and Remediation
- Tree Climbing and Aerial Rescues
- Tree Health Management
- Tree Pruning
- Turf Maintenance\*

#### WSQ Courses for Landscape Supervisors (Level 3)

- Hazards and Risk Control, and Policy Management
- Plant Health Management and Disease Control
- Plant Identification
- Soil and Media Assessment and Remediation

#### WSQ Courses for Landscape Managers (Level 4)

- Budgeting
- Environmental Management in Landscape Operations
- Hazards and Risk Control, and Policy Management
- Horticultural Chemical Usage
- Horticultural Maintenance Programme
- Plant Health Management and Disease Control
- Project Management

### Workshops

- A Guide to Grow Healthy Plants
- Advanced Tree Climbing with SRS
- Advanced Tree Decay Assessment
- Butterfly Gardens — Ecology to Practical Design
- Chainsaw Operations and Maintenance (Refresher)
- Designing a Nature Playgarden
- Designing Therapeutic Horticulture Programmes for Children with Special Needs
- Dragonflies and Damselflies: Ecology, Conservation and Wetlands Creation
- Edible Gardens in Our City in Nature
- Formative Pruning for Young Trees
- Fundamental Tree Management Programme
- Introduction to Contemplative Landscape Model Design Application
- Introduction to Therapeutic Horticulture and Therapeutic Garden
- Landscape Safety Orientation Programme (Bengali)
- Landscape Safety Orientation Programme (Chinese)
- Landscape Safety Orientation Programme (English)
- Landscape Safety Orientation Programme (Tamil)
- Playground Safety Management Workshop
- Resistance Drilling Equipment
- Therapeutic Garden Design
- Therapeutic Horticulture for Seniors
- Tree Climbing and Aerial Rescue Level 2 (Refresher)
- Tree Decay — The Fundamentals
- Tree Felling
- Tree Inspection — Advanced
- Tree Inspection — Failure Documentation and Analysis
- Tree Inspection — The Basics
- Trees and Construction — Understanding the Arboriculture Impact
- Tropical Tree Identification, Biology and Physiology
- Urban Greenery Management
- Understanding Soil and Its Importance to Plants

### Certification Programmes

- Advanced Tree Climbing with SRS
- Animal Health Professional Certification Programme
- Animal Health Professional Certification Programme (Refresher)
- Animal Management Certification Programme — Basic
- Animal Management Certification Programme Basic (Refresher)
- Animal Management Certification Programme Intermediate Electives — Mammals (Refresher)
- Animal Management Certification Programme Intermediate Electives — Reptiles (Refresher)
- Animal Management Intermediate Elective Community Animals — Cat
- Animal Management Intermediate Elective Community Animals — Dog
- Animal Management Intermediate Elective — Mammals
- Animal Management Intermediate Elective — Reptiles
- Certificate in Basic Plant Recognition Programme (Module 1 to Module 10)
- Certificate in Field Epidemiology (Refresher)
- Certified Parks Manager
- Certified Playground Safety Inspector Course and Examination
- Certified Practising Horticulturist Programme
- ISA Certified Arborist Preparatory Programme
- ISA Tree Risk Assessment Qualification (TRAQ) Renewal Online
- ISA Tree Risk Assessment Qualification Programme
- Pneumatic Blowpipe and Dart Gun Refresher Course
- Refresher for ISA Arborist

### Seminar/Webinar and International Programmes

- Harnessing Geographic Information Systems for Environmental Conservation
- Planning for Parks and Greenery
- Managing Nature in Developments Webinar for Development Agencies
- Managing Nature in Developments Webinar for Qualified Professionals
- Singapore's Transformation to City in Nature

\*Programmes with Assessment-Only Pathway (AOP)

# FACTS & FIGURES

FY2025

(AS OF 31 MARCH 2025)

### NParks Staff Strength

STAFF STRENGTH AS AT 30 SEPTEMBER 2024

# 1,204

### Regional Parks and Greenery Maintained by NParks

| NUMBER OF REGIONAL PARKS | NUMBER OF NEIGHBOURHOOD PARKS | TOTAL MILEAGE OF PARK CONNECTORS MAINTAINED |
|--------------------------|-------------------------------|---|
| 89                       | 324                           | 393 KM                                      |

TOTAL AREA MAINTAINED (HA)

|   |  |   |
|---|--|---|
| 3,358.11<br>Parks, playgrounds, open spaces, fitness corners and park connectors* | 3,347<br>Nature reserves (gazetted)              | 42<br>Istana and Parliament House grounds |
| 2,039.47<br>Roadside greenery   | 4,511.71<br>State land greenery as of Mar 2025** |   |

### Plant Health

|                                 |   |
|---------------------------------|---|
| 41,332<br>Import permits issued | 263<br>Post-entry inspections conducted |
|---------------------------------|---|

## Animal Health & Welfare

### LICENCES, PERMITS, AND HEALTH CERTIFICATES ISSUED FOR ANIMAL TRADE

|  |   |  |
|--|---|--|
| 5,207<br>Animals (excluding livestock) | 5,484<br>Ornamental fish (import permits) | 3,224<br>Ornamental fish (export health certificates)      |
| 164<br>Biologics                       | 58<br>Birds                               | 1,569<br>Products (blood, sera, urine, clinical specimens) |
| <b>TOTAL: 15,706</b>                   |   |  |

### LICENSING VETERINARIANS AND VETERINARY CENTRES

|                                |                                     |
|--------------------------------|-------------------------------------|
| 649<br>Number of veterinarians | 127<br>Number of veterinary centres |
|--------------------------------|-------------------------------------|

### DOG LICENSING AND ENFORCEMENT

|  |                         |
|--|-------------------------|
| ~91,000<br>Dog licences issued                             | ~14,000<br>New licences |
| ~77,000<br>Renewed licences (includes multi-year licences) |                         |

### TYPES OF ANIMAL DISEASE SURVEYED IN BREEDING FACILITIES

|  |   |
|--|---|
| 4<br>Ornamental bird breeders surveyed<br><ul style="list-style-type: none"> <li>Avian influenza</li> <li>Newcastle disease</li> </ul> | 37<br>Ornamental fish breeders surveyed<br><ul style="list-style-type: none"> <li><i>Aeromonas salmonicida</i></li> <li>Chytrid fungus</li> <li>Epizootic haematopoietic necrosis virus</li> <li>Infectious haematopoietic necrosis virus</li> <li>Infectious spleen and kidney necrosis virus</li> <li>Koi herpes virus</li> <li>Megalocytivirus</li> <li>Spring viraemia of carp virus</li> <li>Viral haemorrhagic septicaemia</li> <li>White spot disease</li> </ul> |
|--|---|

### NPARKS' ANIMAL BIOSURVEILLANCE PROGRAMMES

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li><i>Aeromonas salmonicida</i></li> <li>African swine fever</li> <li>Anaplasmosis</li> <li>Antimicrobial resistance</li> <li>Avian influenza</li> <li>Babesiosis</li> <li>Bluetongue</li> <li>Bovine tuberculosis</li> <li>Brucellosis</li> <li>Campylobacteriosis</li> <li>Canine distemper</li> <li>Chytridiomycosis</li> <li>Classical swine fever</li> <li>Contagious bovine pleuropneumonia</li> <li>Coronaviruses</li> <li>Cryptococcosis</li> <li>Cryptosporidiosis</li> <li><i>Escherichia coli</i> O157:H7</li> </ul> | <ul style="list-style-type: none"> <li>Ehrlichiosis</li> <li>Epizootic ulcerative syndrome</li> <li>Foot and mouth disease</li> <li>Heartworm</li> <li>Koi herpes virus</li> <li>Leishmaniosis</li> <li>Leptospirosis</li> <li>Lyme diseases</li> <li>Newcastle disease</li> <li>Nipah virus disease</li> <li>Parvovirus</li> <li><i>Plasmodium knowlesi</i></li> <li>Psittacosis</li> <li>Rabies</li> <li>Rickettsial disease</li> <li>Spring viraemia of carp virus</li> <li>Swine influenza</li> <li>Toxoplasmosis</li> <li>White spot disease</li> </ul> |
|---|--|

\* Excludes Bukit Timah Nature Reserve, Central Catchment Nature Reserve, Sungei Buloh Wetland Reserve and Labrador Nature Reserve which have been computed under "Nature Reserves".

\*\* Greenery on vacant land taken over from agencies

# CORPORATE GOVERNANCE

## FY2025

### Board Members

NParks is overseen by a Board comprising 11 members. All Board members are non-executive members, except the Chief Executive Officer. The Board derives its strength from the extensive and complementary backgrounds, qualifications and experience of its members.

The Board provides strategic direction and guidance on policies and strategies relating to NParks' vision, mission, objectives, and performance of its functions. In addition, it oversees NParks' operating and financial performance, taking into account NParks' budget, expenses, assets, transactions and projects.

In discharging its duties, the Board is supported by the following committees:

#### Audit Committee

The Audit Committee comprises three non-executive Board members. It plays a key role in ensuring a high standard of corporate governance through independent reviews of internal controls, financial reporting processes and financial risks. In addition, the Audit Committee reviews the audited financial statements, as well as the audit plans and observations of external and internal auditors, and reviews the effectiveness of internal audit.

##### Chairman

Ms Eu Chin Fen

##### Members

Mr Gerald Tan  
Ms Magdelene Chua

#### Operation Risk Committee

The Operations Risk Committee comprises three non-executive Board members, including the Chairman of the Board. Its role is to provide strategic oversight of NParks' operations risk management framework and conduct reviews of NParks' operations risks. The Operations Risk Committee also oversees the implementation of risk mitigation plans, policies and practices.

##### Chairman

Mr Loh Khum Yean

##### Members

Mr Benett Theseira  
Mr Stephen Beng

#### Human Resource and Compensation Committee

The Human Resource and Compensation Committee comprises three non-executive Board members. Its role is to assist the Board in providing guidance on human capital management challenges.

##### Chairman

Ms Tham Loke Kheng

##### Members

Ms Nur Hidayah Abu Bakar  
Mr Lim Shung Yar

#### Garden City Fund Management Committee

The Garden City Fund Management Committee manages and administers the Garden City Fund, a registered charity and an Institution of a Public Character, to plan, develop, promote and manage the Garden City Fund in accordance with its Trust Deed.

Please refer to page 42 for the work of the Garden City Fund in the year in review.

#### Board's Conduct of Its Affairs

The Board meets four times a year and as and when necessary to address any significant matters that may arise. To enable the Board to fulfil its responsibilities, the Management Team provides the Board members adequate information during Board meetings and on an ongoing basis. The Board also has direct and independent access to the Management Team if further information and explanation are required.

#### Code of Conduct

Members of the Board are guided by a set of key principles and guidelines to ensure fairness and impartiality when they carry out their responsibilities, as well as to uphold the integrity and reputation of the Public Service, including adhering to the Public Sector (Governance) Act 2018.

#### Accountability and Audit

The Board's accounts are audited by the Auditor-General or such other auditor who may be appointed annually by the Minister in consultation with the Auditor-General. The auditor engaged for the financial year which ended on 31 March 2025 was Foo Kon Tan LLP. The audited financial statements and the auditor's report were submitted to the Board and the Ministry of National Development, and also presented to Parliament.



Spice Gallery at Fort Canning Park

#### Internal Control Framework

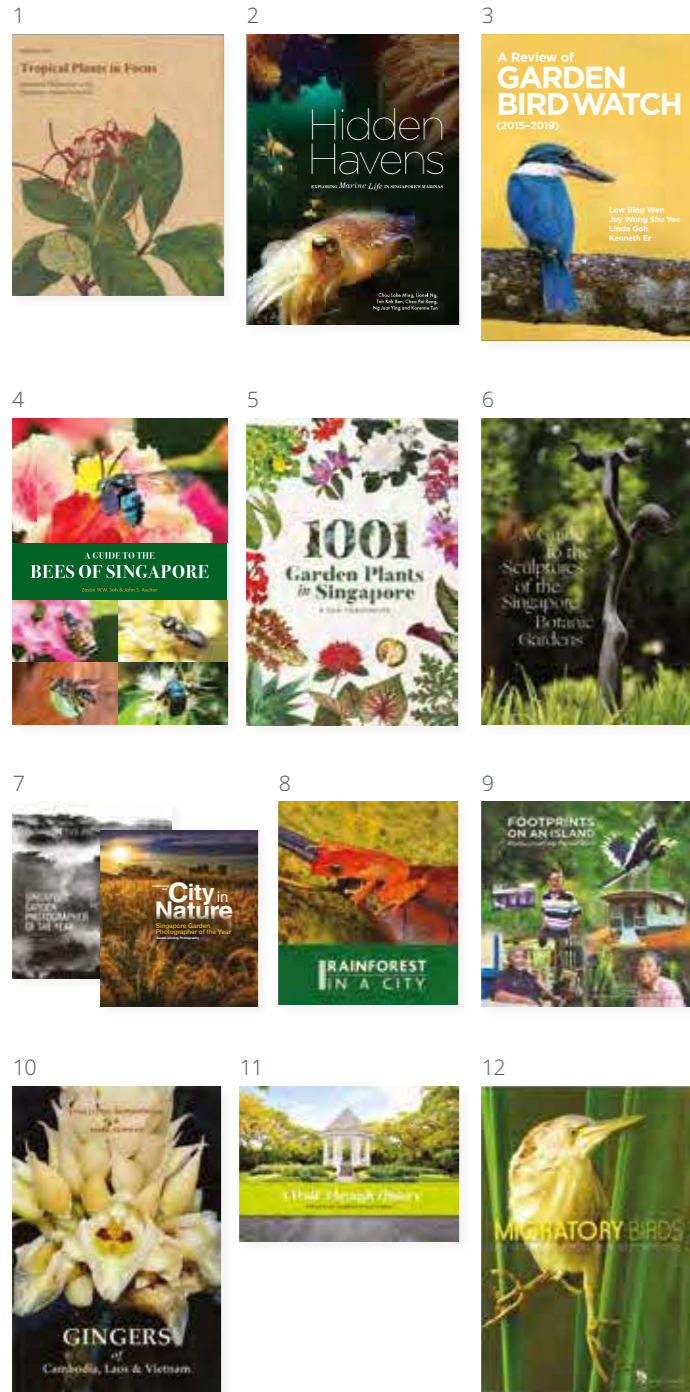
NParks' internal control system ensures that assets are safeguarded, proper accounting records are maintained, and financial information is reliable. The overall control framework includes:

- An organisation structure with clearly defined authority and delegation limits and reporting mechanisms to higher levels of management and to the Board;
- An annual budgeting and quarterly financial reporting system for all operating units that enables progress against annual plans and objectives to be monitored;
- Compliance with the provisions of the National Parks Board Act 1996, Statutory Board Financial Reporting Standards, Government Instruction Manuals, Finance and PSD Circulars and Minutes for policies and procedures related to operations, human resource management and financial controls and regulations; and
- A risk management framework which ensures close monitoring with proper mitigating measures for all identified high-risk areas.

# PUBLICATIONS



Scan QR code to view full list of publications



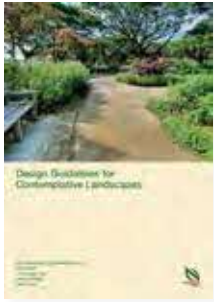
## Books

- 1 **Tropical Plants in Focus: Botanical Illustration at the Singapore Botanic Gardens**  
By Michele Rodda
- 2 **Hidden Havens: Exploring Marine Life in Singapore's Marinas**  
By Chou Loke Ming, Lionel Ng, Toh Kok Ben, Cheo Pei Rong, Ng Juat Ying and Karenne Tun  
Published in collaboration with NUS.
- 3 **A Review of Garden Bird Watch (2015-2019)**  
By Low Bing Wen, Joy Wong Shu Yee, Linda Goh and Kenneth Er
- 4 **A Guide to the Bees of Singapore**  
By Zestin W.W. Soh and John S. Ascher  
Published in collaboration with NUS.
- 5 **1001 Garden Plants in Singapore: A New Compendium**  
By Soh Weijing, Tamako Kobayashi, Dr Jennie Tang, Jessica Teo, Pauline Tay and Low Wei Teng
- 6 **A Guide to the Sculptures of the Singapore Botanic Gardens**  
By Grace Lee, Ada Davis, Tan Miao Yuan and Tan Wan Xin
- 7 **Singapore Garden Photographer of the Year, Celebrating Our City in Nature: Singapore Garden Photographer of the Year**  
Edited by Wong Tuan Wah, Linda Goh, Ada Davis and Victoria Cheong  
*Singapore Garden Photographer of the Year won the Grand Award in the 2016 APEX Awards for Publication Excellence under the category of One-of-a-Kind Publication (Green).*
- 8 **Rainforest in a City**  
By Chua Ee Kiam  
Won the Bronze medal in the 2015 Independent Publisher Book Awards under the category of Environment/Ecology/Nature, and the Silver award in the 2015 Nautilus Book Awards under the category of Ecology Environment.
- 9 **Footprints on an Island: Rediscovering Pulau Ubin**  
By Chua Ee Kiam, Choo Mui Eng and Wong Tuan Wah  
Won the Nautilus 2016 Silver Award in the Multicultural & Indigenous category, and was recognised in the One-of-a-Kind Publication (Green) category at the 30th Annual APEX Awards for Publication Excellence competition.
- 10 **Gingers of Cambodia, Laos & Vietnam**  
By Jana Leong-Škorničková and Mark Newman
- 11 **A Walk Through History: A Guide to the Singapore Botanic Gardens**  
By Nigel Taylor and Ada Davis
- 12 **Migratory Birds of Sungei Buloh Wetland Reserve**  
By James Gan, Mendis Tan and David Li

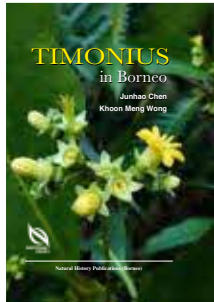


- 13 **My Green Space: Indoor Gardening Made Simple**  
By Ang Wee Foong and Lily Chen
- 14 **A Guide to the Common Epiphytes and Mistletoes of Singapore**  
By Jean W.H. Yong, James Wang Wei, Joanne Y.T. Khew, Sheue Chiou Rong and Wong Wei San
- 15 **Native Orchids of Singapore: Diversity, Identification and Conservation (2<sup>nd</sup> edition)**  
By Yam Tim Wing
- 16 **Dragonflies of Our Parks and Gardens**  
By Robin Ngiam
- 17 **Trees of Our Garden City**  
Edited by Tee Swee Ping
- 18 **Caterpillars of Singapore's Butterflies**  
By Horace Tan and Khew Sin Khoon
- 19 **Birds of Our Wetlands: A Journey Through Sungei Buloh Wetland Reserve**  
Edited by Wong Tuan Wah, Victoria Cheong, Ada Davis, How Choon Beng, David Li, Low Bing Wen, Florence Sim and Yang Shufen
- 20 **The Nature of Poetry**  
Edited by Edwin Thumboo and Eric Tinsay Valles
- 21 **Flora of Singapore, Volume 1 (Introduction), Volume 7 (Poales), Volume 13 (Gentianales)**  
Edited by David Middleton, Stuart Lindsay and Jana Leong-Škorničková
- 22 **A Guide to Macrofungi in Singapore**  
By Serena M.L. Lee and Amy M.F. Choong
- 23 **Designing a City in Nature**  
By Jason Wright and Audrey Xu
- 24 **Fort Canning Park: Heritage and Gardens**  
By Chng Mun Wye and Sara-Ann Ang
- 25 **A Photographic Guide to Singapore Spiders**  
By Joseph Koh, David Court, Chris Ang and Paul Ng

26



27



28



**26 Design Guidelines for Contemplative Landscapes**

By Agnieszka Olszewska-Guizzo, Alicia Soh, Dr Angelia Sia, Jason Wright and Jeff Seow

**27 Timonius in Borneo**

By Junhao Chen and Khoon Meng Wong

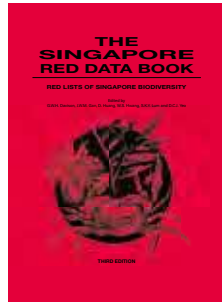
**28 The Hunt for the Green Boomerang, Secrets of the Swamp**

By Neil Humphreys and illustrated by Cheng Puay Koon  
*Secrets of the Swamp* won the Best Book award for 6-8 year olds in the 2014 Harper's Bazaar Junior Toy Awards.

29



30



**29 A Present for Ginger, My Dog is Not from a Pet Shop, Journey to the Animal Classroom**

By Jill Lim and illustrated by Patrick Yee

**30 The Singapore Red Data Book: Red Lists of Singapore Biodiversity**

Edited by Dr Geoffrey Davison, James Gan, Huang Danwei, Dr Hwang Wei Song, Dr Shawn Lum, Dr Darren Yeo

**31 The Botanists of the Singapore Botanic Gardens: The First 100 Years**

Edited by Dr Wong Khoon Meng, Dr S. K. Ganesan, Dr Louise Neo and Dr Jose Irene dos R. Furtado

**32 Singapore's Orchid Diplomacy**

By Koh Buck Song

**Journals**

**33 The Gardens' Bulletin, Jun 2024 & Dec 2024**

**Periodicals**

31



32



33



34



35



**34 Gardenwise, Jul 2024 & Mar 2025**

**35 CITYGREEN, Issue 21**

The CUGE publication CITYGREEN won APEX Awards for Publication Excellence for 11 consecutive years (2012–2022).

# STAFF PUBLICATIONS

## Books

CITYGREEN Issue #21

Davison, G.W.H., **Gan, J.W.M.**, Huang, D., Hwang, W.S., Lum, S.K.Y. & Yeo, D.C.J. (eds.), *The Singapore Red Data Book: Red Lists of Singapore Biodiversity*, Third Edition, National Parks Board, Singapore.

**Lee, S. & Leong-Škorničková, J.** (2025). Uniting the two Singapore herbaria: SINU is merged with SING. *Gardenwise*, 64: 18–19.

**Neo, L.**, Sugumaran, M., Goh, W.L. & **Wong, K.M.** (2025). Studies in Southeast Asian Melastoma (Melastomataceae), 5. *Melastoma in Peninsular Malaysia and Singapore, taxonomy, biology, and uses*. Natural History Publications (Borneo), Kota Kinabalu, in association with National Parks Board, Singapore.

Wei, Y.-M., Tang, Q.-M., **Ho, B.-C.** & Luo, C. (2024). *Bryophyte of Yachang — Liverworts and Hornworts*. Shandong Science Technology Publishing House, Jinan, China, 420 pp.

**Wong, K.M.**, **Ganesan, S.K.**, **Neo, L.** & Furtado, J.I.d.R. (eds.) *The Botanists of the Singapore Botanic Gardens: The First 100 Years*. National Parks Board, Singapore Botanic Gardens.

## Book Chapters

**Cai, Y.**, **Ng, D. J. J.**, Gan, L. X., Toh, E. X. P., & Yeo, D. C. J. (2024). Arthropoda – Freshwater Decapod Crustaceans. in Davison, G.W.H., Gan, J.W.M., Huang, D., Hwang, W.S., Lum, S.K.Y. & Yeo, D.C.J. (eds.), *The Singapore Red Data Book: Red Lists of Singapore Biodiversity*, Third Edition, National Parks Board, Singapore. pp 302–308.

**Cannon, C.** (2025). The wonderful, mysterious life of trees. *Gardenwise* 64: 22–23.

**Ganesan, S.K.** (2024). The Botanists—E.J.H. Corner. In: Wong, K.M., Ganesan, S.K., Neo, L. & Furtado, J.I.d.R. (eds.) *The Botanists of the Singapore Botanic Gardens: The first 100 years*. National Parks Board–Singapore Botanic Gardens.

**Middleton, D.J.**, **Lindsay, S.**, **Ho, B.C.**, **Chong, K.Y.**, **Athen, P.**, **Bazilah Ibrahim, Chen, J.**, **Chen, L.M.J.**, **Choo, L.M.**, **Gan, J.W.M.**, **Ganesan, S.K.**, Gardner, E.M., **Hu, A.Q.**, **Koh, S.L.**, **Kurzweil, H.**, **Lai, S.**, **Lam, W.N.**, **Lee, S.M.L.**, **Leong, P.K.F.**, **Leong-Škorničková, J.**, **Liew, D.C.H.**, **Lim, R.C.J.**, **Lim, W.H.**, **Low, Y.W.**, **Lua, H.K.**, **Neo, L.**, **Ng, X.Y.**, **Niissalo, M.A.**, **Phang, A.**, **Rodda, M.L.**, **Seah, W.W.**, **Thomas, D.C.**, **Turner, I.M.**, **Wong, K.M.**, **Yaakub, S.M.**, **Yeo, C.K.** & **Yeoh, Y.S.** (2024). Checklist of Flora Species with their Category of Threat Status in Singapore. In: Davison, G.W.H., **Gan, J.W.M.**, Huang, D., Hwang, W.S., Lum, S.K.Y. & Yeo, D.C.J. (eds.), *The Singapore Red Data Book: Red Lists of Singapore Biodiversity*, Third Edition, pp. 454–514. National Parks Board, Singapore.

**Middleton, D.J.**, **Lindsay, S.**, **Ho, B.C.**, **Chong, K.Y.**, **Athen, P.**, **Bazilah Ibrahim, Chen, J.**, **Chen, L.M.J.**, **Choo, L.M.**, **Gan, J.W.M.**, **Ganesan, S.K.**, Gardner, E.M., **Hu, A.Q.**, **Koh, S.L.**, **Kurzweil, H.**, **Lai, S.**, **Lam, W.N.**, **Lee, S.M.L.**, **Leong, P.K.F.**, **Leong-Škorničková, J.**, **Liew, D.C.H.**, **Lim, R.C.J.**, **Lim, W.H.**, **Low, Y.W.**, **Lua, H.K.**, **Neo, L.**, **Ng, X.Y.**, **Niissalo, M.A.**, **Phang, A.**, **Rodda, M.L.**, **Seah, W.W.**, **Thomas, D.C.**, **Turner, I.M.**, **Wong, K.M.**, **Yaakub, S.M.**, **Yeo, C.K.** & **Yeoh, Y.S.** (2024). Flora. In: Davison, G.W.H., **Gan, J.W.M.**, Huang, D., Hwang, W.S., Lum, S.K.Y. & Yeo, D.C.J. (eds.), *The Singapore Red Data Book: Red Lists of Singapore Biodiversity*, Third Edition, pp. 23–60. National Parks Board, Singapore.

Neo, L. (2024). The Botanists—M.R. Henderson. In: Wong, K.M., Ganesan, S.K., Neo, L. & Furtado, J.I.d.R. (eds.) *The Botanists of the Singapore Botanic Gardens: The first 100 years*. National Parks Board, Singapore Botanic Gardens.

**Soh M. C. K.**, Yong D. L., Corlett R. T. and Peh K. S. -H. (2024). Ecology and Conservation of Forest Birds. In K. S. -H. Peh, R. T. Corlett and Y. Bergeron (Eds.), *Routledge Handbook of Forest Ecology* (2nd ed., pp. 299–313). Routledge, London and New York. <https://doi.org/10.4324/9781003324072-22>

## Journal Articles

**Cai, Y.** (2025). The Freshwater Shrimps of the Family Atyidae (Crustacea, Decapoda, Caridea) of New Guinea. *Water*, 17, 639. <https://doi.org/10.3390/w17050639>

**Cai, Y.** & Naiyanetr P. (2024). The freshwater shrimps of the family Atyidae (Decapoda, Caridea) of Thailand. Christoph D. Schubart Memorial Issue. *Crustaceana*, 97 (5-9): 767–804. DOI: 10.1163/15685403-bja10429

Callmander, M.W., **Low, Y.W.**, Poopath, M. & Buerki, S. (2024). Pandanus ramromensis (Pandanaeae), a new species from Peninsular Thailand. *Garden's Bulletin Singapore*, 76(2): 269–275.

**Cham, J.**, **Tun, K.**, & Jaafar, Z. (2025). Distribution of marine turtles in Singapore: human-wildlife coexistence in a highly urbanized seascape. *Bulletin of Marine Science*, 101(1): 157–178(22). <https://doi.org/10.5343/bms.2023.0117>

Cheek, M. & **Turner, I.M.** (2024). 'Monkey Cups', from where and when? *Planta Carnivora Journal of the Carnivorous Plant Society*, 42: 26–31.

**Chen, J.**, **Ng, X.Y.** & **Wong, K.M.** Two new combinations in Pitardella and first record of the genus in the Malay Peninsula. *Phytotaxa* 664 (2): 146–150.

**Chen, L.M.J.**, Jong, Y.W., **Koh, S.L.**, **Lim, W.H.**, **Ho, B.C.** & **Neo, L.** (2024). Changes in conservation statuses of two presumed extinct plant species in Singapore: Abutilon indicum (L.) Sweet (Malvaceae) and Cyperus dubius Rottb. (Cyperaceae). *Nature in Singapore*, 17: e2024031

Chen, Y., **Chen, J.**, Xue, B., **Thomas, D.C.** & Saunders, R.M.K. Gynoecial diversity in the Annonaceae and the evolution of functional traits that overcome the limitations of apocarpy. *Journal of Systematics and Evolution* [EARLY VIEW]

Cheng, K., Lee, Y.H., Qian, J., **Lee, D.**, **Yusof, M.L.M.**, Yucel, A.C., A Compact Dual-Polarized Vivaldi Antenna with High Gain for Tree Radar Applications. *Sensors* 2024; 24(13):4170. <https://doi.org/10.3390/s24134170>

**Choo, L.M.**, **Chia, E.J.J.**, **Zaki Jamil, Niissalo, M.A.**, **Neo, W.L.**, **Ooi, Z.Y.**, **Ang, W.F.**, Loo, A.H.B., Saw, L.G., Chung, R.C.K. & **Er, K.B.H.** (2024). Conservation genetics and status of Orania sylvicola palms in Singapore – native relicts or historical re-introductions? *Garden's Bulletin Singapore*, 76(1): 1–30.

Dai, Q., Lee, Y.H., Sun, H.-H., Qian, J., **Yusof, M.L.M.**, **Lee, D.**, Yucel, A.C. Learning From Clutter: An Unsupervised Learning-Based Clutter Removal Scheme for GPR B-Scans. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* (Volume: 17). Page(s): 19668 - 19681. <https://doi.org/10.1109/JSTARS.2024.3486535>

Dan Wei, Yuan Xu, Gang Hao & **Utteridge, T.M.A.** (2024). Maesa flabellifera (Primulaceae), a new species from southeast Yunnan, China. *PhytoKeys*, 248: 189–197.

**Er, K.B.**, **Nguyen, D.H.**, **Yeoh, Y.S.**, **Khoo, M.D.**, **Choo, R.**, **Tay, L.S.**, **Soh, S.Y.**, **Jamil, Z.**, **Ang, W.F.** and Loo, A.H., (2024). Why do understory Licuala palm fruits turn from red to white and then black when ripe?. *Ecology and Evolution*, 14(9), p.e70249.

**Er, K.B.H.**, Tan, R., **Neo, L.** & Ang, W.F. (2024). Rediscovering and conserving orchids in a tropical city-state. *Garden's Bulletin Singapore*, 76(2): 165–181.

Fedosov, V.E., Wei, Y.-M., **B.-C. Ho**, Atwood, J., Kuznetsova, O.I. & Igmatov, M. (2024). The genus Fissidens in Russia, III: *Fissidens kiusiuensis* (Bryophyta), new species for the Russian Far East. *Arctoa*, 33: 107–116. <https://doi.org/10.15298/arctoa.33.12>

He, S. & **Ho, B.-C.** (2024). Errata to the Flora of Singapore precursors, 41. *Garden's Bulletin Singapore*, 76(2): 303–305. [https://doi.org/10.26492/gbs76\(2\).2024-13](https://doi.org/10.26492/gbs76(2).2024-13)

He, S. & **Ho, B.C.** (2024). Flora of Singapore precursors, 41: Taxonomic updates on the moss genus Ectropothecium and allied genera (Hypnaceae). *Garden's Bulletin Singapore*, 76(1): 55–83.

Hlavatá, K., Závěská, E., **Leong-Škorničková, J.**, Pouch, M., Poulsen, A.D., Šída, O., Khadka, B., Mandáková, T. and Fér, T (2024). Ancient hybridization and repetitive element proliferation in the evolutionary history of the monocot genus Amomum (Zingiberaceae). *Frontiers in Plant Science*, 15:1324358, DOI 10.3389/fpls.2024.1324358

**Ho, B.C.**, **Chia, E.J.J.**, **Chong, K.Y.**, **Tan, J.S.Y.**, **Tan, W.X.**, **Lai, S.**, **Choo, T.Y.S.**, **Tan, P.Y.** & **Er, K.B.H.** (2024). Shortening of leafing intervals with changes in rainfall patterns over a 90-year period in a tropical botanical garden. *Plants, People, Planet* 6(6): 1469–t1479.

Hoo, P.K., Musalmah, N., Cheah, Y.H., **Wong, K.M.** & Sugumaran M. (2024). Timonius pasohensis (Rubiaceae), a rare new species from Pasoh Forest, Malaysia, and its population characteristics in the 50-ha forest dynamics plot. *Journal of Tropical Forest Science*, 36(3): 327–337.

Huang, P., Tang, Q., Xiang, Y., **Ho, B.-C.**, Wang, S. & Peng, T. (2024). Ten species of liverworts and hornworts new to Guangxi, China. *Guihaia* 44(11): 2152–2162. <https://doi.org/10.11931/guihaia.gxzw2024060>

Jaafar, Z., Ng, L., Todd, P., **Tun, K.**, & Huang, D. (2025). Proceedings of the 5<sup>th</sup> Asia-Pacific Coral Reef Symposium. *Bulletin of Marine Science* 101(1): 1–8(8). <https://doi.org/10.5343/bms.2025.0022>

Kiew, R., A.M. Aliaa-Athirah & **Leong-Škorničková, J.** (2024). *Garden's Bulletin Singapore*, 76(1): 131–145.

Kiew, R. & **Utteridge, T.M.A.** Towards a Flora of New Guinea: Oleaceae. Part 2, Eight new species of Chionanthus. Kew Bull.

Lai, H.R., **Chong, K.Y.**, Wong, M.Q.Y., Tan, H.T.W., & Yeo, D.C.J. (2025). Leaf-litter depth, not canopy openness, mediates the occurrence of an invasive shrub from the forest edge to interior. *Biotropica*, 57: e70002.

Lam, W.N., Huang, J., Tay, A.H.T., Sim, H.J., Chan, P.J., Lim, K.E., Lei, M., Amy Ny Aina Aritsara, **Chong, R.**, Ting, Y.Y., Nur Estya Binte Rahman, Sloey, T.M., van Breugel, M., Cao, K.-F., Wee, A.K.S. & **Chong, K.Y.** (2024). Leaf and twig traits predict habitat adaptation and demographic strategies in tropical freshwater swamp forest trees. *New Phytologist*, 243(3): 881–893.

Lestari, Y., Nurtjahya, E. & **Utteridge, T.M.A.** (2024). Potensi Sumber Benih Pohon di Taman Wisata Alam Jering Menduyung, Bangka Barat, Kepulauan Bangka Belitung. *LenteraBio* 13: 358–367.

**Li, D.**, **Khoo, M.D.Y.**, Lanctot, R.B., Tomkovich, P.S., Ma, Z., Chow, J., **Soh, M.C.K.**, **Yang, S.**, **How, C.B.**, Loo, A., **Teo, R.**, **Lim, L.J.**, **Leong, C.C.**, Er, K.B.H. (2025). Migration of Wintering Grey Plover from Southeast Asia to North-Central Siberia Challenges Breeding Population Delineations in Russia. *Ecology and Evolution*, 2025; 15:e70815 <https://doi.org/10.1002/ece3.70815>

Li, Y.-F., Luo, L., Liu, Y., He, Q., Yu, N.-N., Gaowa, N., Yi, Z.-Q., Wang, J.-J., Han, W., Peng, T., **Ho, B.-C.**, He, X., Zhang, L., Chen, Z.-D., Jia, Y. & Wang, Q.-H. (2024). The Bryophyte Phylogeny Group: A revised familial classification system based on plastid phylogenomic data. *Journal of Systematics and Evolution* 62(4): 577–588. <https://doi.org/10.1111/jse.13063>

Li, Y., Rangarajan, S., Rahardjo, H., Shen, Y., Hamdany, A.H., Satyanaga, A., Leong, E.C., Wong, S.K., Wang, C.L., Kew, H., Naing, T.H., **Poh, C.H.**, **Ghosh, S.** (2025). Database of Soil Properties Incorporating Organic Content From Roots And Soil Organisms for Regional Slope Stabilisation. *Scientific Reports*, 15:1066. <https://doi.org/10.1038/s41598-025-85250-5>

**Lim, R.B.H.**, **Heng, Z.P.**, **Ho, K.**, **Koh, K.**, **Lim, H.P.**, **Lim, K.**, **Sng, W.**, **Tan, G.**, **Teo, E.**, **Chua, T.H.** (2024). Modeling Singapore's First African Swine Fever Outbreak in Wild Boar Populations. *Transboundary and Emerging Diseases*. 5546893. <https://doi.org/10.1155/2024/5546893>

Liqiang, Yuan, Fan Haozheng, Xie Jing, Chang Shiran, Amit Kumar Das, **Derrick Nguyen Hoang Danh**, Khoo Eng Huat et al. "Pushing the boundaries of aphid detection: An investigation into mmWaveRadar and machine learning synergy." *Computers and Electronics in Agriculture* 229 (2025): 109655.

Liu, M.-F., **Chen, J.**, Goodrich, K.R., Chiu, S.K., Pang, C.-C., Scharaschkin, T., Saunders, R.M.K. (2025). Aerial litter mimicry: A novel form of floral deception mediated by a monoterpene synthase. *Journal of Ecology* 113: 302–321.

Liu, Y.Y., Niu, J.Y., Tang, Q.M., Ho, B.-C. & Wei, Y.M. (2024). Bryum atyviens Brid. complex (Bryaceae, Bryophyta) of China, including a new species record. *Guihaia* 44(4): 657–669.

**Low, B.W.**, Wee, S.Q.W, **Soh, M.C.K.** & **Er, K.B.H.** (2024). Avian functional diversity retained in a tropical forest fragment after more than 120 years of turnover. *Biodiversity and Conservation* 33(6-7): 1–16. <https://doi.org/10.1007/s10531-024-02855-4>

**Low G.W.**, Pavlova A., Gan H.M., Ko M.-C., Sadanandan K.R., Lee Y.P., Amos J.N., Austin L., Falk S., Dowling D.K., Sunnucks P. (2024). Accelerated differentiation of neo-W nuclear-encoded mitochondrial genes between two climate-associated bird lineages signals potential co-evolution with mitogenomes. *Hereditas*. <https://doi.org/10.1038/s41437-024-00718-w>

**Loy, R. H.**, Cheo, P. R., **Lai, S.**, Leong, B., & **Tun, K.** (2025). Citizen science monitoring uncovers resilience of intertidal assemblages in a tropical urban environment. *Bulletin of Marine Science* 101(1): 391–408(18). <https://doi.org/10.5343/bms.2023.0104>

Luo, W., Lee, Y.H., Hao, T., **Yusof, M.L.M.**, Yucel, A.C. Automatic Dual-Polarized Ground Penetrating Radar for Enhanced 3-D Tree Roots System Architecture Reconstruction. *IEEE Transactions on Geoscience and Remote Sensing* (Volume: 62). <https://doi.org/10.1109/TGRS.2024.3509497>

Ly, N.S., Cao, N.G. & **Leong-Skornickova, J.** (2025). *Boesenbergia monophylla* (Zingiberaceae: Zingibereae), a new species from central Vietnam. *Phytotaxa*, 694(2): 184-192. <https://doi.org/10.11646/phytotaxa.694.2.6>

Ly, N.S., Nguyen, H.Q. & **Leong-Skornickova, J.** (2025). *Zingiber aureolinum* (Zingiberaceae: Zingiberoideae) a new species from central Highlands, Vietnam. *Phytotaxa*, 694(2):193-200. <https://doi.org/10.11646/phytotaxa.694.2.7>

Meeprom, N., Duangjai, S., **Utteridge, T.M.A.**, Culham, A. & Puglisi, C. (2024). Notes on South-East Asian Diospyros L. (Ebenaceae, Ericales): commonly misidentified species in mainland South-East Asia. *Eur. J. Taxon*, 932: 225-251.

**Middleton D.J.**, Gajurel, P.R., **Lindsay, S.**, Lua, H.K. & **Turner, I.M.** (2024). Flora of Singapore precursors, 48: Further notes on the genus *Piper* (Piperaceae) in Singapore. *Garden's Bulletin Singapore*, 76(2): 183-214.

**Middleton, D.J.**, Tetsana, N., Puudjaa, P., Thananthaisong, T., Daonurai, K., Poompayak, K. & Suddee, S. (2024). Four more new species of Microchirita (Gesneriaceae: Didymocarpoideae) from Thailand.

Moeller, M., **Middleton, D.J.**, Ulrich, S. & Weber, A. (2025). Bournea is not supported as separate from Oreocharis. *Edinburgh Journal of Botany*, 82, Article 2028: 1-9 (2025). <https://doi.org/10.24823/EJB.2025.2028>

Nge et al. (27 authors including **Chen, J.**, **Choo, L.M.**, **Neo, W.L.** & **Thomas, D.C.**) (2024). Complete genus-level phylogenomics and new subtribal classification of the pantropical plant family Annonaceae. *Taxon*, 73(6): 1341-1369.

**Nguyen, D. H. D.**, Tan, A. J. H., Lee, R., Lim, W. F., Wong, J. Y., & Suhaimi, F. (2024). Monitoring of plant diseases caused by Fusarium commune and Rhizoctonia solani in bok choy using hyperspectral remote sensing and machine learning. *Pest Management Science*.

**Nguyen, D.**, Tan, A., Lee, R., Lim, W. F., Hui, T. F., & Suhaimi, F. (2024). Early detection of infestation by mustard aphid, vegetable thrips and two-spotted spider mite in bok choy with deep neural network (DNN) classification model using hyperspectral imaging data. *Computers and Electronics in Agriculture*, 220, 108892.

**Phang, A.**, **Niissalo, M.A.**, Ruhsam, M., Pezzini, F.F., Neo, W.L., Burslem, D.F.R.P., Middleton, D.J., Wilkie, P. & Khew, G.S. (2024). Genetic erosion in a tropical tree species demonstrates the need to conserve wide-ranging germplasm amid extreme habitat fragmentation. *Biodivers. Conserv.* (2024). <https://doi.org/10.1007/s10531-024-02870-5>

Poulsen, A.D., Fer, T., Kumarage Marasinghe, L.D., Sabu, M., Hughes, M., Valderrama, E. & **Leong-Škorničková J.** (2024). The cardamom conundrum: recircumscription and placement of Elettaria in the only pantropically distributed ginger lineage. *Taxon* (e-published September 2024, waiting for printed issue; <https://doi.org/10.1002/tax.13242>)

Qian, J., Lee, Y.H., Cheng, K., Dai, Q., **Yusof, M.L.M.**, **Lee, D.**, Yucel, A.C. A Deep Learning-Augmented Stand-off Radar Scheme for Rapidly Detecting Tree Defects. *IEEE Transactions on Geoscience and Remote Sensing*, <https://doi.org/10.48550/arXiv.2406.05389>

Ranasinghe, S.W., Nishii, K., Möller, M., Atkins, H.J., Clark, J.L., Perret, M., Kartonegoro, A., Gao, L.M., Middleton, D.J. & Milne, R.I. (2024). Biogeographic history of the pantropical family Gesneriaceae with a focus on the Indian Plate and diversification through the Old World. *Frontiers of Biogeography* (2024), 16.2, e61637. <https://doi.org/10.21425/F5FBG61637>

Shih H. T., **Cai, Y.**, Niwa, N., Yoshigou, H., & Nakahara Y. (2024). Integrative taxonomy reveals freshwater shrimp diversity (Decapoda: Atyidae: Neocaridina) from Kyushu and southern Honshu of Japan, with a discussion on introduced species. *Zoological Studies*, 63:18. doi:10.6620/ZS.2024.63-18.

**Sia, A.**, Sum, C.W., **Lim, C.**, **Khoo, K.E.**, **Er, K.** (2025). Nature Playgardens as Sites for Early Childhood Education in a Tropical City. *International Journal of Early Childhood Environmental Education*, 12(1), 40-49.

Smith P, Joseph A, Baker-Austin C, Kang N, Baron S, Le Devendec L, Jouy E, Chisnall T, Davies AR, Schwarz S, Feßler AT, Ahrens T, Jahnhen J, Alter T, Fleischmann S, Hammerl JA, Jäckel C, Giesecker CM, Crosby TC, Kittel EC, Miller RA, Alexander T, Carranza K, Burbick CB, **Ching B**, **Soh JH**, **Chng YR**, **Wong WK**, **Fernandez CJ**, **Chang SF**, Verner-Jeffreys D, Powell A. (2024). Epidemiological cut-off values for *Vibrio parahaemolyticus* calculated from minimal inhibitory concentration data generated at 35 and 28°C. *DAO 160:127-134* (2024). DOI: <https://doi.org/10.3354/dao03831>

**Soh M. C. K.**, Chitre M. A., Hoffmann-Kuhnt M., **Lee B.Y. -H.** and **Er K. B. H.** (2024). A novel method for estimating avian roost sizes using passive acoustic recordings. *Ecological Solutions and Evidence* 5: e12394. <https://doi.org/10.1002/2688-8319.12394>

**Soh M. C. K.**, Goh M. W. X., **Ng B. X. K.**, **Han H. Z.**, **Khoo M. D. Y.**, **Leong D. Y. W.**, Lee B. P.Y.-H., Loo A. H. B. and **K. B. H. Er.** (2024). Urban bird commensal maintain coexistence under extreme food shortages. *Journal of Applied Ecology* 00: 1-15. <https://doi.org/10.1111/1365-2664.14776>

Sungkaew, S., Arthan, W., Teerawatananon, A., Chamchumroon, V., **Neo, L.** & **Wong, K.M.** (2024). *Thaigardenia* (Rubiaceae: Gardenieae), a new genus distributed from Thailand to South China. *Thai Forest Bulletin (Botany)*, 52(1): 25-43.

Sungkaew, S., Arthan, **W.**, **Wong, K.M.**, Hodkinson, T.R., Thammanu, S., Cheysawat, S., Teerawatananon, A. (2004). Taxonomic revision of the bamboo genus *Schizostachyum* (Bambusoideae: Melocanninae) in Thailand, with two new species and five new records, lectotypifications and nomenclatural corrections. *Phytotaxa*, 676(3): 263-286.

**Tan, Y. H. J.**, **Lai, S.**, & **Tun, K. P. P.** (2025). "Accidental" artificial reefs—lessons from Singapore for coral and seagrass restoration along urban shorelines. *Bulletin of Marine Science* 101(1): 197-209(13). <https://doi.org/10.5343/bms.2023.0134>

**Tay L. S.**, **Choo R.**, **Khoo M. D. Y.**, **Kong E.**, **Chan Y. X.**, **Neo W. H. Y.**, **Ow S.**, **Toh Y. H.**, **Ling H.**, **Soh M. C. K.**, Lee B. P. Y.-H., Loo A. H. B. and **Er K. B. H.** (2024). A Suite of Wildlife Crossing Structures Facilitates Mammal Movement across Tropical Forest Fragments in a City. *Ecosphere* 15(12): e70114. <https://doi.org/10.1002/ecs2.70114>

**Thomas, D.C.**, Ardi, W.H., Chong, Y.H., Thomas, P. & Hughes, M. (2024). Conservation status assessment of species-rich tropical taxa in the face of data availability limitations: insights from Sulawesi Begonia. *Scientific Reports*, 14, 14007.

Tomlin, C.M., Rajaraman, S., Sebesta, J.T., Scheen, A.-C., Bendiksby, M., **Low, Y.W.**, Salojärvi, J., Michael, T.P., Albert, V.A. & Lindqvist, C. (2024). Genomic histories of polyploidy, diversification, and admixture in a Hawaiian plant radiation. *Nature Communications*, 15: 3109. <https://doi.org/10.1038/s41467-024-47247-y>

Toolmal, N., Suddee, S., Culham, A., **Utteridge, T.M.A.** & Schuiteman, A. (2024). Eleven species of Thrixspermum (Orchidaceae: Vandeeae: Aeridinae) newly recorded from Thailand. *Taiwania*, 506-521.

**Turner, I.M.** (2024). Flora of Singapore precursors, 42: Notes on Rosaceae in Singapore. *Garden's Bulletin Singapore*, 76(1): 85-101.

**Turner, I.M.** (2024). Flora of Singapore precursors, 43: Notes on Viburnaceae in Singapore. *Garden's Bulletin Singapore*, 76(1): 103-107.

**Turner, I.M.** (2024). Flora of Singapore precursors, 44: Notes on Menispermaceae in Singapore. *Garden's Bulletin Singapore*, 76(1): 109-126.

**Turner, I.M.** & Cheek, M. (2024). Jack and the earliest published *Nepenthes* binomial names in Malesia. *Planta Carnivora Journal of the Carnivorous Plant Society*, 42: 39-50.

**Utteridge, T.M.A.** & **Turner, I.M.** (2024). Flora of Singapore precursors, 47: The genus *Phytocrene* (Icacinaeae) in Singapore

**Utteridge, T.M.A.**, Yamanaka, M., Komaki, Y. & Kawakita, A. (2024). *Pittosporum beecheyi*. *Curtis's Bot. Mag.* 41: online first. <https://doi.org/10.1111/curt.12592>

van Welzen, P.C., Esser, H.-J., **Middleton D.J.** & **Lindsay, S.** (2024). Flora of Singapore precursors, 45: Typifications and nomenclatural clarifications in Euphorbiaceae, Phyllanthaceae, Picrodendraceae, Rutaceae and Sapindaceae for the Flora of Singapore. *Garden's Bulletin Singapore*, 76(2): 183-214.

Wang, S., Wei, Y., Tang, Q., **Ho, B.-C.**, Peng, T. (2024). The genus *Schistochila* in Guangxi with *Schistochila sciurea* as new recorded species of China. *Acta Botanica Boreali-Occidentalia Sinica*, 44(8): 1338-1344. <https://doi.org/10.7606/j.issn.1000-4025.20240067>

Weber, A., **Middleton, D.J.** & Moeller, M. (2025). *Skogea* is a synonym of *Boeica* (Gesneriaceae). *Edinburgh Journal of Botany* 82, Article 2026:1-8 (2025). <https://doi.org/10.24823/EJB.2025.2026>

**Whang, L.K.** (2025). The National Orchid Garden (NOG) and Raffles Institution (RI) immersion programme in orchid conservation, cultivation and hybridisation, 2022-2023. *Gardenwise*, 64: 16-17.

Wong, S.C. & **Wong, K.M.** (2024). Dr Eduard Ferdinand (Ed) de Vogel (1942-2021), Malesian Botanist, Visionary Orchidologist and New Guinea Veteran. *Malesian Orchid Journal*, 27: 126-141.

**Yeo, C.K.** & Tan, H.T.W. (2024). Spatial genetic structure of *Ficus superba* (Moraceae) in mainland and insular Singapore. *Garden's Bulletin Singapore*, 76(1): 31-53.

**Yong, C. K. L.**, **M. C. K. Soh, A. N. Samsuri, K. N. Lim, and K. B. H. Er.** (2024). Trapping efficacy of invasive crows is affected by environmental factors and deployment history. *Wildlife Society Bulletin*, 48:e1535. <https://doi.org/10.1002/wsb.1535>

Yooprasert, S., Bilsborrow, J. & **Utteridge, T.M.A.** The genus *Hypobathrum* (Rubiaceae) in Thailand. *Kew Bull. Online first*.

Z.-Y. Cai, E.A. Widjaja, N.-H. Xia & **K.M. Wong** (2024). *Gigantochloa lako* (Poaceae, Bambusoideae), a new combination for a horticulturally important bamboo species from Southeast Asia. *Phytotaxa*, 663(2):101-105.

Zieritz, A., Gibbins, C., **Cai, Y.**, Diba, F., Gan, L. X., Lopes-Lima, M., Mendoza J.C.E., Morse, J., Ng T.H., Toh, E.X.P., Pfeiffer, J., Low B. W., Marwoto, R., Rahim K.A.A., Shellman, B., Sulaiman, Z., Tan, Z.W., Wowor, D., Yusuf, N.S., Yeo, D.C.J., (2024). Prioritising challenges and actions for freshwater conservation in a tropical biodiversity hotspot. *Biological Conservation*, 299 (2024) 110839. <https://doi.org/10.1016/j.biocon.2024.110839>

Zuntini, A. et al. (100 + authors including **Rodda, M.**, **Utteridge, T.M.A.** and **Hu, AQ**) (2024). Phylogenomics and the rise of the angiosperms.

## Magazine Articles

**Bai, S.Y.** (2025). Singapore's Orchid Diplomacy: A blooming legacy unveiled at the National Orchid Garden. *Gardenwise*, 64: 12-15.

**Koh, T.S. & Ho, B.C.** (2024). Beyond the Gardens: Orchid and Bryophytes Conservation Workshop at the Dr Cecilia Koo Botanic Conservation Center, Taiwan. *Gardenwise*, 63: 32-36.

**Lee, S.M.L.** (2024). From the Earth: Ethel Maud Morrison Burkill - Fungi in art and science. *Gardenwise*, 63: 28-31.

**Nura, A.K.** (2025). What's Blooming: Nature's perfume delight and a chameleon of flower. *Gardenwise* 64: 30-31.

**Pang, Y.Y.** (2025). Singapore Garden Festival 2024: A thriving showcase of garden artistry. *Gardenwise*, 64: 4-7.

**Rodda, M. & Yeo, M.** (2024). A Botanical Odyssey: An exhibition at the Botanical Art Gallery. *Gardenwise*, 63: 12-15.

**Singh, R.S.** (2024). A Garden of Birds: A curator's perspective. *Gardenwise*, 63: 16-19.

**Singh, R.S.** (2024). From the Archives: A Garden of Birds over the years. *Gardenwise*, 63: Back cover.

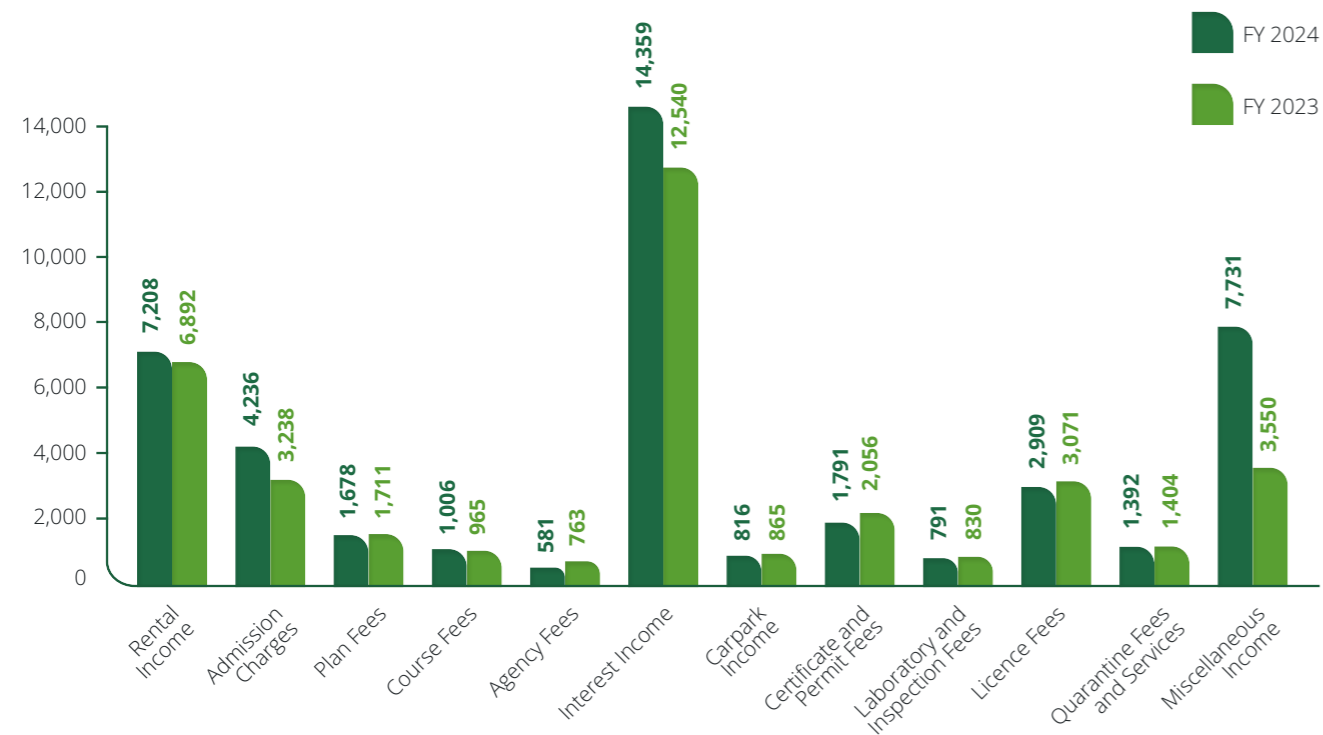
**Wong, W.** (2024). Edibles: Growing edible flowers in the Tropics (Part 2): Climbers. *Gardenwise*, 63: 24-27.

# FINANCIAL REVIEW

## Income

The Group's income comprised mainly interest income, rental income from souvenir kiosks and F&B outlets in Singapore Botanic Gardens and Fort Canning Park, admission charges and licence fees. The income for the year was \$44.5 million. The increase from last year's income was mainly due to an increase in interest income, admission charges and miscellaneous income.

### Operating Income for FY 2024 & FY 2023 (\$'000)

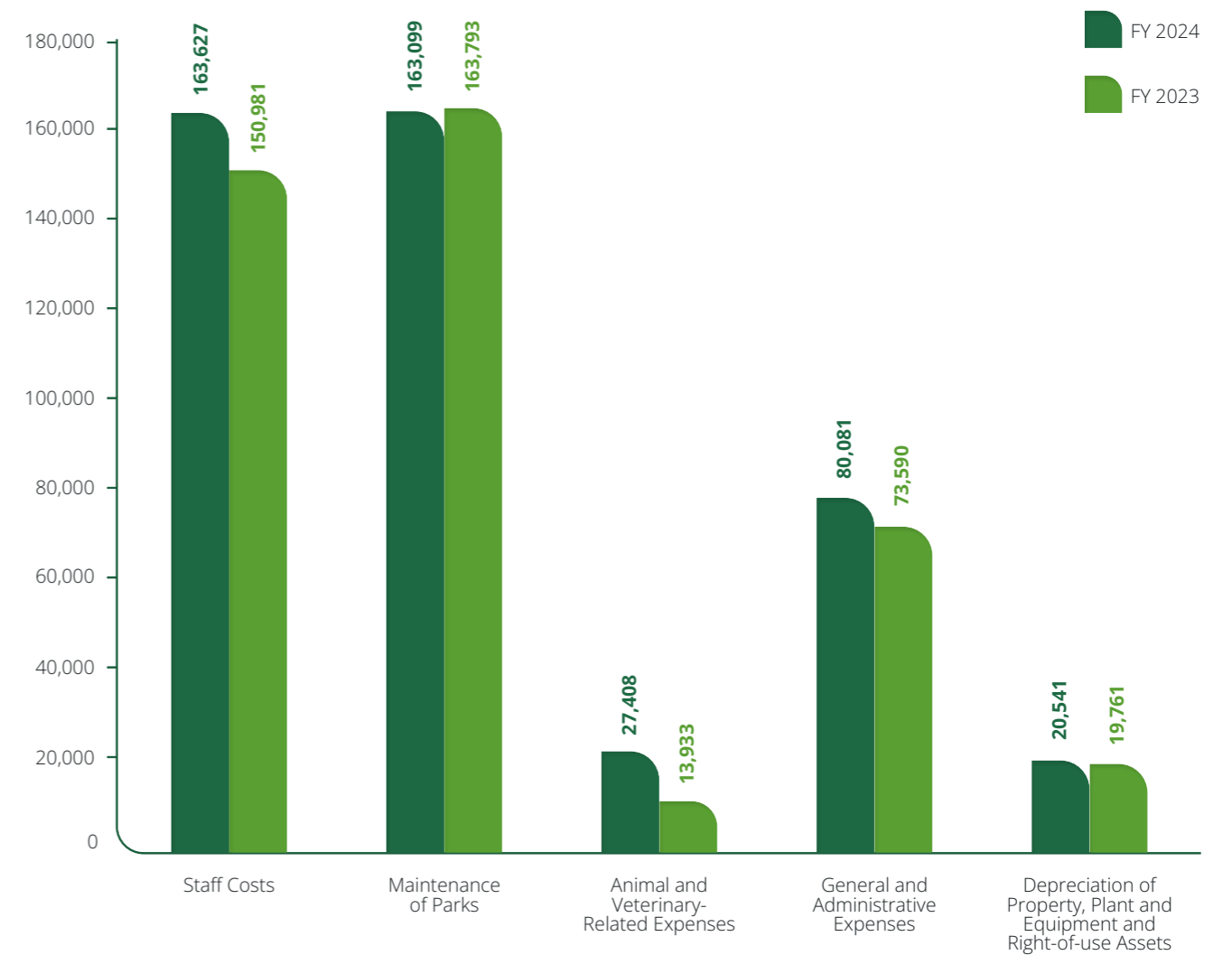


| INCOME                         | FY 2024<br>\$'000 | FY 2023<br>\$'000 | VARIANCE<br>\$'000 | % CHANGE    |
|--------------------------------|-------------------|-------------------|--------------------|-------------|
| Rental Income                  | 7,208             | 6,892             | 316                | 4.6         |
| Admission Charges              | 4,236             | 3,238             | 997                | 30.8        |
| Plan Fees                      | 1,678             | 1,711             | (32)               | (1.9)       |
| Course Fees                    | 1,006             | 965               | 40                 | 4.2         |
| Agency Fees                    | 581               | 763               | (182)              | (26)        |
| Interest Income                | 14,359            | 12,540            | 1,819              | 14.5        |
| Carpark Income                 | 816               | 865               | (48)               | (5.6)       |
| Certificate and Permit Fees    | 1,791             | 2,056             | (265)              | (12.9)      |
| Laboratory and Inspection Fees | 791               | 830               | (39)               | (4.6)       |
| Licence fees                   | 2,909             | 3,071             | (161)              | (5.3)       |
| Quarantine Fees and Services   | 1,392             | 1,404             | (12)               | (0.9)       |
| Miscellaneous Income           | 7,731             | 3,550             | 4,181              | >100        |
| <b>Total</b>                   | <b>44,498</b>     | <b>37,885</b>     | <b>6,613</b>       | <b>17.5</b> |

## Operating Expenditure

The Group's operating expenditure for the year was \$454.76 million, which is about 8% higher compared to last year's operating expenditure of \$422.06 million. The increase was mainly due to an increase in staff costs, animal and veterinary-related expenses, general and administrative expenses and depreciation costs, offset by a slight decrease in park maintenance expenses.

### Operating Expenditure for FY 2024 & FY 2023 (\$'000)

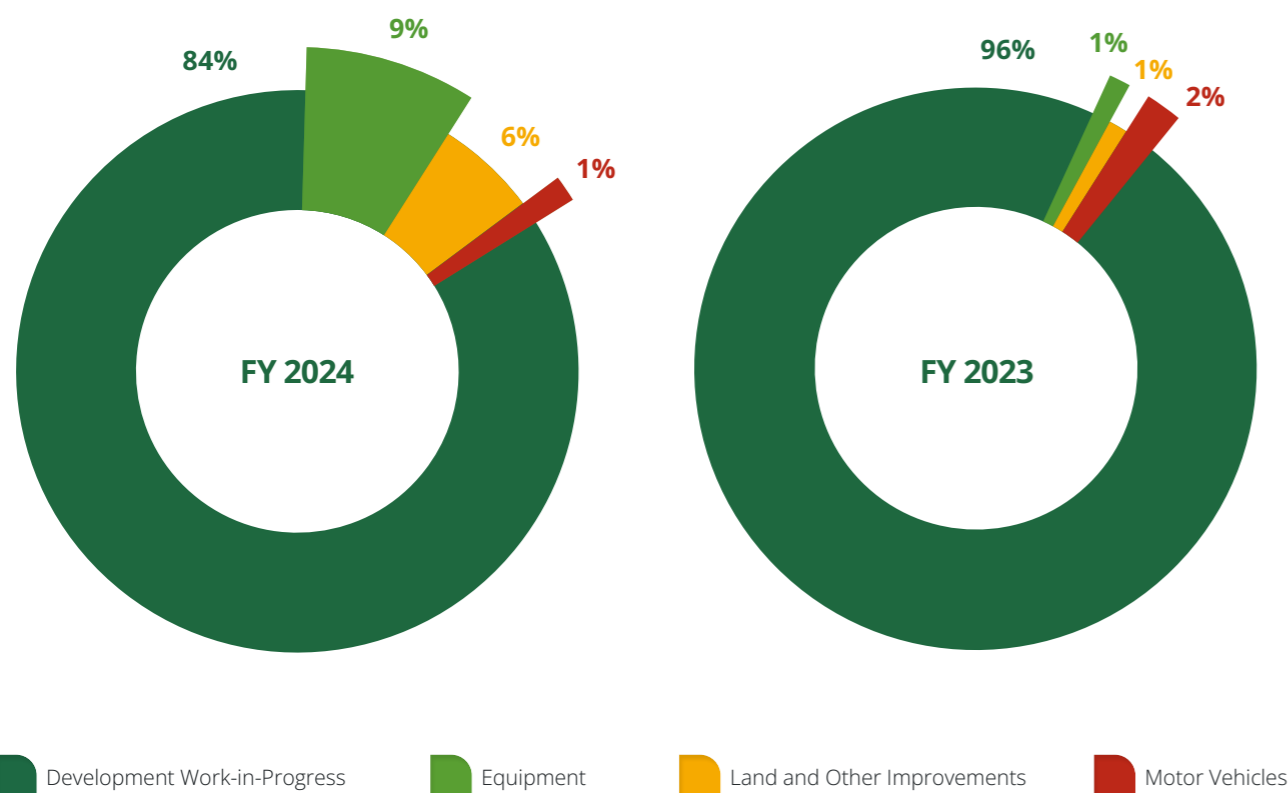


| OPERATING EXPENDITURE   | FY 2024<br>\$'000 | FY 2023<br>\$'000 | VARIANCE<br>\$'000 | % CHANGE    |
|---|-------------------|-------------------|--------------------|-------------|
| Staff Costs   | 163,627           | 150,981           | 12,646             | 8.38        |
| Maintenance of Parks  | 163,099           | 163,793           | (694)              | < 1         |
| Animal and Veterinary-Related Expenses                                | 27,408            | 13,933            | 13,476             | 96.72       |
| General and Administrative Expenses                                   | 80,081            | 73,590            | 6,490              | 8.82        |
| Depreciation of Property, Plant and Equipment and Right-of-use Assets | 20,541            | 19,761            | 780                | 3.95        |
| <b>Total</b>  | <b>454,756</b>    | <b>422,058</b>    | <b>32,698</b>      | <b>7.75</b> |

## Capital Expenditure

The Group's capital expenditure for the year was \$20.05 million. The increase in capital expenditure was mainly due to higher purchases of equipment and development work-in-progress in FY2024.

### Capital Expenditure for FY24 and FY23

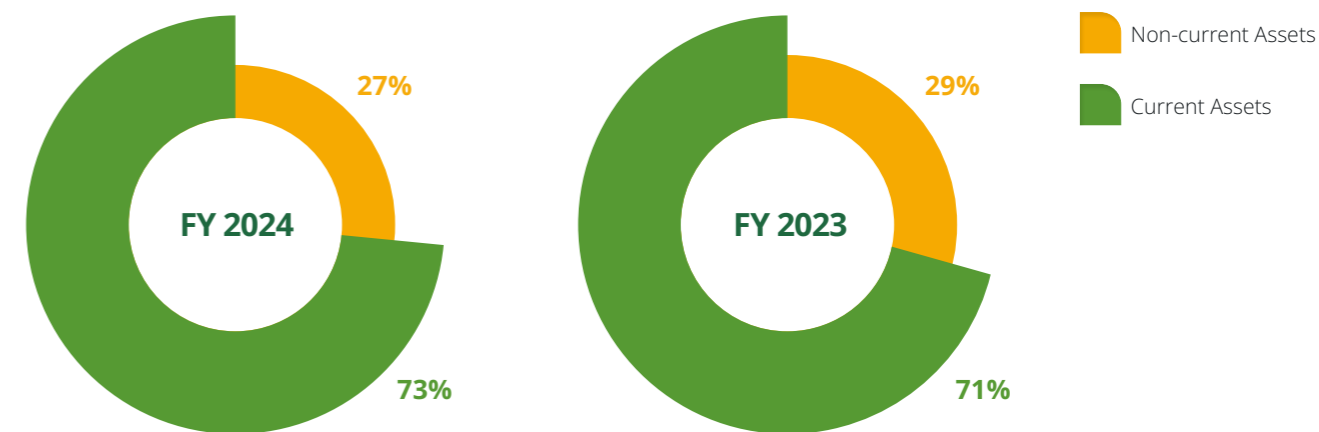


| CAPITAL EXPENDITURE          | FY 2024 \$'000 | FY 2023 \$'000 | VARIANCE \$'000 | % CHANGE |
|------------------------------|----------------|----------------|-----------------|----------|
| Development Work-in-Progress | 16,942         | 11,312         | 5,630           | 49.8     |
| Equipment                    | 1,762          | 151            | 1,611           | >100     |
| Land and Other Improvements  | 1,109          | 156            | 953             | >400     |
| Motor Vehicles               | 239            | 177            | 62              | 35       |
| <b>Total</b>                 | <b>20,052</b>  | <b>11,796</b>  |                 |          |

## Financial Position

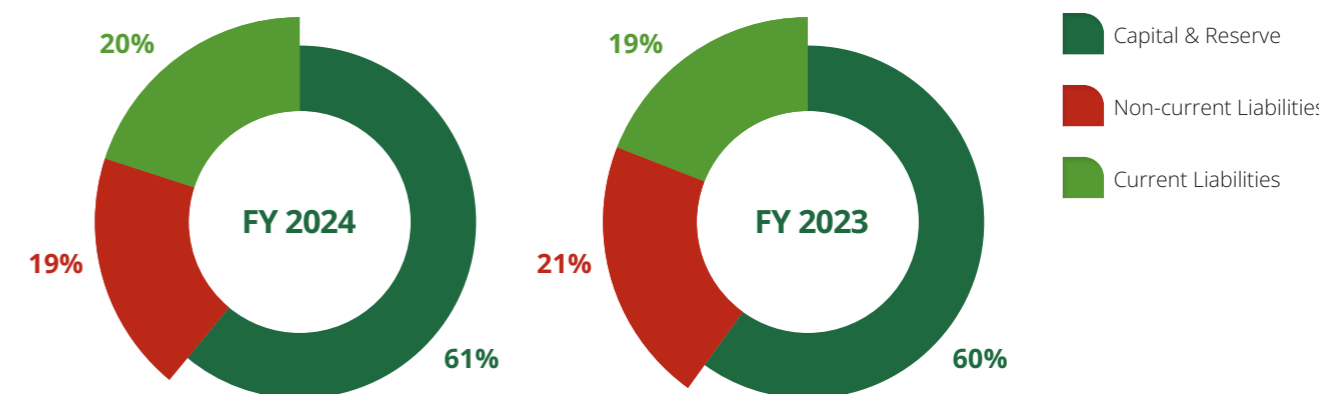
As at 31 March 2025, the Group's total assets stood at \$723.1 million, an increase of 8% from last year. Non-current assets and current assets represent 27% and 73% of total assets respectively. Non-current assets consisted mainly of leasehold land and buildings and structures at Singapore Botanic Gardens and Fort Canning Park, as well as the structures at the Animal & Plant Health Centre, Animal Quarantine Centre and Animal Management Centre. Capital and reserve stood at \$445.61 million, while non-current liabilities and current liabilities stood at \$135.04 million and \$142.45 million respectively.

### Total Assets



| ASSETS             | FY 2024 \$'000 | FY 2023 \$'000 | VARIANCE \$'000 | % CHANGE |
|--------------------|----------------|----------------|-----------------|----------|
| Non-current Assets | 195,320        | 196,522        | 5,630           | -0.6     |
| Current Assets     | 527,782        | 472,996        | 1,611           | 11.6     |
| <b>Total</b>       | <b>723,102</b> | <b>669,518</b> | <b>53,584</b>   | <b>8</b> |

### Total Equity & Liabilities



| EQUITY & LIABILITIES    | FY 2024 \$'000 | FY 2023 \$'000 | VARIANCE \$'000 | % CHANGE |
|-------------------------|----------------|----------------|-----------------|----------|
| Capital & Reserve       | 445,610        | 398,954        | 46,655          | 11.7     |
| Non-current Liabilities | 135,046        | 141,045        | (5,999)         | -4.3     |
| Current Liabilities     | 142,446        | 129,519        | 12,927          | 10       |
| <b>Total</b>            | <b>723,102</b> | <b>669,518</b> | <b>53,584</b>   | <b>8</b> |

# WE THANK STAFF AND PARTNERS OF NPARKS WHO KINDLY CONTRIBUTED TO THIS ANNUAL REPORT

## Photographs

### Jayden Kang

Page 24: Photo of CITES Youth Leadership Programme

### Lionel Ng

Page 27: Photo of *Micromussa amakusensis*

### Daniel Ng

Page 27: Photo of Singapore Freshwater Crab (*Johora Singaporensis*)

### Ng Xin Yi

Page 28: Photo of Two-fold Velvet Bean (*Mucuna biplicata*)

### David Li

Page 29: Photo of Pacific Golden Plover (*Pluvialis fulva*)

### Ken Tan

Page 30: Photo of White-rumped Shama (*Copsychus malabaricus*)

### Jacqueline Chua

Page 35: Photo of Asian Honey Bee (*Apis Cerana*) on a Red Tree Vine (*Leea rubra*)

### Max Khoo

Page 39: Photo of Peregrine Falcon (*Falco peregrinus ernesti*)

## Front Cover

### Jurong Lake Gardens

Our first national garden in the heartlands boasts verdant greenery that showcases the colours and textures of our tropical flora.

## Introduction

### Bidadari Park

Integrated within the new Bidadari estate, the park allows residents to enjoy 'living in a park' — a microcosm of the Singaporean experience of living in a City in Nature.

## Chapter Dividers

### Ch 1 – Tampines Boulevard Park

Developed through resident engagements, the park features amenities suitable for residents of all ages.

### Ch 2 – Sisters' Islands Marine Park

Singapore's first marine park has been enhanced with the support of various partners, donors and researchers to enable marine conservation, outreach, education and recreation.

### Ch 3 – Rifle Range Nature Park

The community played a key role in the enhancement of Rifle Range Nature Park. Residents and schools in the vicinity as well as members of the nature community, such as Friends of Bukit Timah Forest, have contributed to habitat enhancement efforts such as tree planting and removal of invasive species.



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