



It's In Our Nature

TO CHERISH OUR BIODIVERSITY

Singapore's biodiversity is a living heritage that is shared by all. It is heartening, therefore, to see more and more people playing an active role in sustaining this legacy. From individuals to corporations and public agencies, they are joining hands to raise awareness of Singapore's flora and fauna and taking steps to conserve our greenery for the benefit of future generations.



The intertidal flats at Chek Jawa, with six major eco-systems, are most suitable for visiting at low tides of 0.5m and below. This is when one is able to see the richness of the marine life. Schedules for organised tours can be found at www.nparks.gov.sg/events.



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- 01 Two new watch towers to be built by 2018 will allow visitors to enjoy panoramic views of MacRitchie Reservoir as well as the Central Catchment Nature Reserve.
- 02 The Crimson Sunbird (*Aethopyga siparaja*) feeds largely on nectar and is commonly found in parks and gardens.
- 03 More than 40 partners comprising nature groups, volunteers, biodiversity experts, schools, corporate organisations and government agencies, participated in the inaugural Festival of Biodiversity, which featured free exhibits and activities for visitors of all ages to learn more about Singapore's flora and fauna.

Bringing Nature Closer to Singaporeans

As part of continued efforts to make nature more accessible to Singaporeans, NParks is developing a new 30km cycling loop which will encircle the Central Catchment Nature Reserve and join up with the Park Connector Network, providing cyclists and other park users with a seamless link between residential heartlands and the nature reserve. Other developments include the creation of a new 80-hectare Chestnut Nature Park which will feature amenities for nature walks, hiking and mountain biking. Two new seven-storey watch towers will also be built: one at Chestnut Nature Park and the other at MacRitchie Reservoir Park.

In other biodiversity initiatives, NParks is working with interest groups to attract species such as the Crimson Sunbird, Common Birdwing Butterfly and Lesser Whistling Duck into urban green spaces. Priority was given to these species as a result of public feedback gathered from a series of City in a Garden roadshows. Nature is also being streamed live to computers and mobile phones through the Animal Cam initiative, under which four video cameras have been set up at the Sungei Buloh Wetland Reserve to give members of the public a close-up view of the wetlands and its denizens. The video feeds can be viewed at www.nparks.gov.sg/animalcam.

Taking an Active Role in Conservation

Singaporeans are also taking on a more active role in nature conservation efforts. The Biodiversity Roundtable of Singapore, an initiative spearheaded by NParks, National University of Singapore, and WildSingapore, brings together various sectors of the nature community and provides them with a platform for sharing conservation updates, exchanging ideas and raising issues for discussion.

NParks worked with the Biodiversity Roundtable to organise the inaugural Festival of Biodiversity, held at the Singapore Botanic Gardens in May 2012. Highlights included an exhibition on Singapore's marine wildlife titled "Follow the Tide: From Mangroves to Coral Reefs"; a photography exhibition featuring winning images from the BiodiverCity theme of the "City in a Garden" competition; interactive booths, talks, art and craft workshops, film screenings and guided walks.

The Biodiversity Roundtable was set up in 2012 to give the nature community a platform to exchange ideas.



We can create a better City in a Garden by accepting that nature is simply spectacular and part of who we are.

Subaraj Rajathurai
Director, Strix Wildlife Consultancy

From left: The Biodiversity Roundtable includes members such as ButterflyCircle (represented by founder Khew Sin Khoon), Hantu Bloggers (represented by founder Debby Ng), and Strix Wildlife Consultancy (represented by director Subaraj Rajathurai). Dr Chua Ee Kiam (extreme right) is the author of "Wetlands in a City", a publication on Sungei Buloh Wetland Reserve.



Our City in a Garden has created new and exciting possibilities for Singaporeans to explore the great outdoors, spend time and have fun with family, discover the wonders of nature, and excite ourselves with the sheer diversity of our ecosystems.

Joseph KH Koh
Chairman
Nature Reserves Scientific
Advisory Committee

Siti Maryam Yaakub (left) is the founder of Team Seagrass, one of the members of the Biodiversity Roundtable. Joseph Koh (right) is Chairman of the Nature Reserves Scientific Advisory Committee, set up in 2012 to advise on the scientific validity of projects and programmes as well as recommend best management practices.



Coming Together to Explore Singapore's Marine Biodiversity

Phase 2 of Singapore's first Comprehensive Marine Biodiversity Survey (CMBS) has begun. Between May 2012 and May 2013, 73 seabed surveys were carried out, collecting more than 5000 species. A huge collaborative effort was also involved when Singapore embarked on its largest ever marine biodiversity expedition on 15 October 2012. Lasting three weeks, the expedition in the Johor Straits involved 150 local scientists, conservation officers and volunteers from 15 to 60 years of age. A team of 20 renowned scientists from 10 countries also came together to collect and study specimens from Singapore's estuarine and seabed habitats. Over the course of the expedition, 33 seabed and 49 mudflat survey trips were carried out, and more than 10 000 specimens were collected, including about 10 species possibly new to science, more than 40 new records and five rediscoveries for Singapore.

CMBS, a national initiative which was started in 2010 to take stock of the country's marine eco-system, species diversity and distribution, is supported by Asia Pacific Breweries (Singapore) Pte Ltd, Care-for-Nature Trust Fund, Shell Companies in Singapore, and Air Liquide Group.

- 01 CMBS continues to attract extensive support from the community, including hundreds of local volunteers and a team of international experts who contribute their time and expertise to deepen our understanding of Singapore's marine heritage.
- 02 The *Forcepia vansoesti*, characterised by its strange forceps-like spicules, was recently named from the Southern Islands and is a species of sponge possibly new to science.
- 03 Students from River Valley High School helped to sort out specimens collected from the three-week marine biodiversity expedition to Singapore's estuarine and seabed habitats.

A photograph of Mr Benedict Soh, an elderly man with grey hair, wearing a light pink button-down shirt. He is sitting in an orange chair and holding a white coffee cup on a saucer. The background is a blurred outdoor setting with greenery.

We are delighted to work with NParks and be a part in the transformation of Singapore's green landscape and environment.

Mr Benedict Soh
Executive Chairman
Kingsmen Creatives Ltd

Kingsmen Creatives Ltd is a supporter of the Festival of Biodiversity.

Corporates Get Involved

To allow biodiversity to thrive and create a pleasant living environment for all, corporate partners continued to provide strong support for initiatives such as the Plant-A-Tree programme, which helps enhance the greenery in urban Singapore. To date, more than 260 organisations, including Panasonic Asia Pacific, StarHub Ltd and Shimizu Corporation have participated in the programme since its inception in 2007. More than 13 000 trees have been planted and over 20 000 individuals have been reached through this programme under the Garden City Fund.

In another corporate collaboration, a ground-breaking ceremony was held in September for a butterfly garden sponsored by Sharp. The design of the garden was based on the winning entry from a competition organised by the company and NParks to involve students in our greening initiatives. The ceremony took place during a tree-planting session which was held at the Alexandra Canal Linear Park to commemorate Sharp's 100th anniversary.



More than 250 participants from Singapore Oxygen Air Liquide Pte Ltd gathered at Punggol Waterway Park to plant 101 native trees under the Garden City Fund's Plant-A-Tree programme. From left: Prof Leo Tan, Chairman, Garden City Fund; Christophe Chalier, Managing Director, SOXAL; and Mok Kwong Weng, Vice-President, North-East & South-East Asia, Air Liquide Group.



At the Cities for Life Summit, held in parallel with COP 11 in Hyderabad, India, the Singapore Index on Cities' Biodiversity was recommended as one indicator system to monitor biodiversity in cities. Seen in this picture is Dr Lena Chan, Director of National Biodiversity Centre, who represented Singapore at the summit.

Schools Create a Green Wave

Schools also recognised the importance of trees and contributed to Singapore's greening efforts by participating in the Green Wave, a global biodiversity campaign. The event was held on 22 May, the International Day for Biological Diversity. On that day, children and youth in participating schools all over the world plant and/or water a tree at 10 am local time, creating a "green wave" that goes around the world.

This year, 186 schools in Singapore participated in the movement, 91 of them for the first time.

Students were also involved in another celebration of biodiversity which took place on 1 February 2013, when the Sungei Buloh Wetland Reserve commemorated World Wetlands Day together with Muraviovka Wetlands Park in Russia. A web conference was set up for participants from River Valley High School in Singapore and four schools in Russia to discuss projects they were working on at the respective wetland reserves.

Participating in International Conservation Efforts

NParks remains committed to working with the international community in championing biodiversity and conservation efforts worldwide. In October 2012 at the Eleventh Meeting of the Conference of Parties (COP 11) to the Convention on Biological Diversity (CBD) in Hyderabad, India, Parties to the CBD recommended that the Biodiversity Indicators Partnership use the Singapore Index on Cities' Biodiversity (SI) as a tool to monitor the progress of urban settlements in implementing the CBD Strategic Plan. The development of the SI, a self-assessment tool designed to help cities evaluate and benchmark biodiversity conservation efforts, was spearheaded by NParks in collaboration

with the Secretariat of the CBD and the Global Partnership on Local and Subnational Action for Biodiversity.

At the Cities for Life: City and Subnational Biodiversity Summit, held in parallel with COP 11, the Hyderabad Declaration recommended the use of relevant indicator systems such as the SI in monitoring biodiversity at the local and subnational levels. Hyderabad also launched a publication on their application of the SI, which spurred greater interest internationally. The SI was also featured for the first time in a global publication, "Cities and Biodiversity Outlook".

As of January 2013, more than 70 cities are in various stages of applying the SI. To facilitate application by cities from different regions and cultures, the User's Manual for the SI is being translated into several languages, including French, German, Portuguese, Japanese, Chinese, Thai and Vietnamese.

In March, the Singapore Botanic Gardens hosted the Global Strategy for Plant Conservation Workshop 2013, which brought together 21 participants from Cambodia, China, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Thailand, Timor-Leste, Vietnam and Singapore. The five-day workshop was organised by the CBD Secretariat in collaboration with NParks.

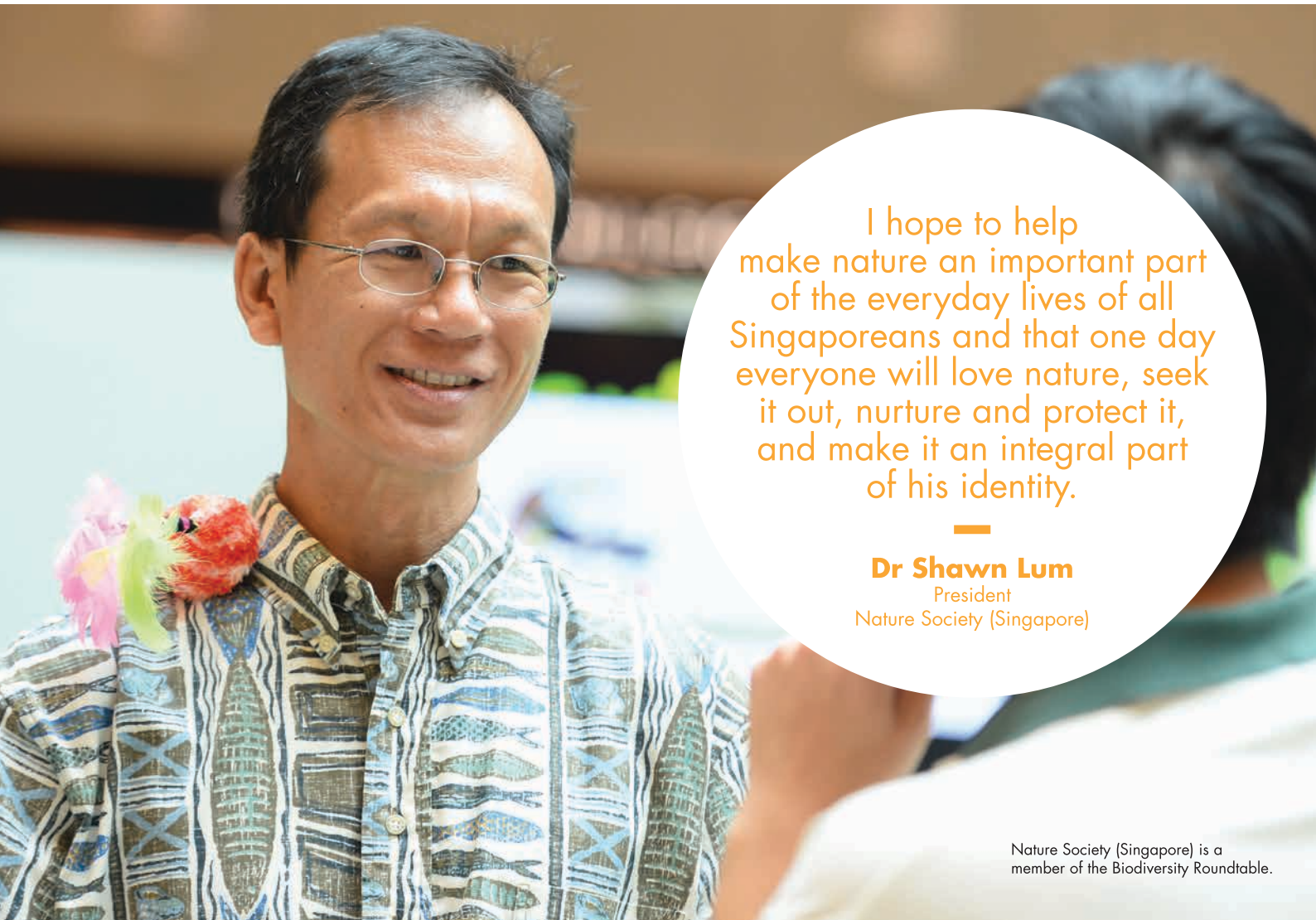
In another international initiative, 13 members of the Federation of Information & Communication Technology Service of Japan commemorated the International Day for Biological Diversity at the Sungei Buloh Wetland Reserve on 20 May 2012. Working in collaboration with Japan Eco Planning Service, they planted native trees that were specially selected to enhance the biodiversity of the habitat.



You cannot begin to love or respect nature if you don't know anything about it.

—
Allan Teo

Volunteer guide at
Sungei Buloh Wetland Reserve



I hope to help make nature an important part of the everyday lives of all Singaporeans and that one day everyone will love nature, seek it out, nurture and protect it, and make it an integral part of his identity.

—
Dr Shawn Lum

President
Nature Society (Singapore)