

Building a 'City in a Garden' goes beyond green infrastructure. Our stakeholders must believe in what we conserve and recognise the worth of our shared greenery. To that end, NParks hopes to invest in education for the future on the premise that every contribution matters and that no one is too young to start learning and appreciating the bounties of nature. NParks recognises that conservation is ultimately about convincing people that Singapore's greenery and nature are worth protecting. This involves working closely with our many volunteers, sponsors, and partners, so that fruitful new relationships are established and longstanding ones strengthened. New activities are also developed to encourage appreciation for nature, and inculcate civic-mindedness, care and respect for our environment.

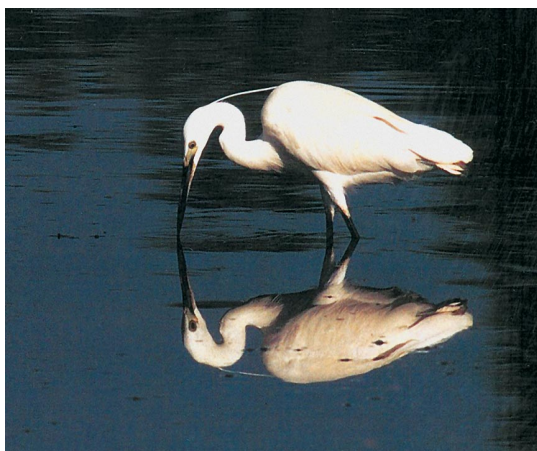


CONSERVING OUR NATURAL HERITAGE

For the year in review, more than 38,000 students visited the Sungei Buloh Wetland Reserve (SBWR), the Bukit Timah & Central Catchment Nature Reserves, Pulau Ubin and the Singapore Botanic Gardens for school excursions and educational talks and programmes. In addition, the public enjoyed some 1,100 guided walks, tours and talks organised by NParks.

SBWR held a year-long celebration of its 10th anniversary by partnering HSBC to hold photography and nature journal competitions, which saw the community participating actively. It also jointly organised and hosted a Protected Area Wetland Management Course for participants from ASEAN countries with funding from the ASEAN Regional Centre for Biodiversity Conservation (ARCBC). NParks shared its experiences with the participants and in turn learned from their various unique management perspectives. To add to visitors' experiences, Kranji Nature Trail, a 2-km scenic walking trail linking SBWR to Kranji Reservoir Park was opened to the public in September 2003. With the support of HSBC, SBWR also published a book entitled

'Sungei Buloh Wetland Reserve - A Decade of Wetland Conservation' to commemorate its 10 years of growth from a site of abandoned prawn ponds to a well-loved wetland reserve and an internationally important site for migratory shorebirds. In December 2003, SBWR became Singapore's first ASEAN Heritage Park, in recognition of its value as a heritage site.



Sungei Buloh Wetland Reserve was designated Singapore's first ASEAN Heritage Park shortly after it celebrated its 10th anniversary in December 2003.

In addition, as part of its on-going series of educational programmes in 2003, SBWR also hosted 65 students from 13 schools for their nine-month long project 'Birds in Wetland Reserves'. This project, held in collaboration with the British Council and the Ministry of Education, gave students a hands-on opportunity to learn about the diverse and wonderful range of birds that make SBWR their home. They participated in bird watching trips, studied the birds' habitats and behavior and recorded their findings in an online nature journal. In total, about 10,500 students visited SBWR from about 260 schools. They were chaperoned by some 1,200 teachers. SBWR staff also conducted more than 210 guided walks for the public.

Over at the Bukit Timah & Central Catchment Nature Reserves, more than 27,000 students visited the area to enjoy its tranquil beauty and lush wildlife. Staff conducted some 190 guided walks, as well as two thematic walks. To help visitors appreciate nature, several talks and workshops were also held on nature conservation. In addition, NParks organised 55 Community Involvement Programme sessions. These are initiatives by the Ministry of Education to encourage volunteerism among students.



The first Forest Clean Up at the Bukit Timah & Central Catchment Nature Reserves was also held in September 2003. Participants and NParks staff were gratified to find that there was relatively little litter in the reserves. To educate users on how to interact with forest monkeys, a 'Monkey and Man' exhibition was held in November 2003 to share with the public why they should not feed monkeys.



top This year, Sungei Buloh Wetland Reserve hosted more than 10,500 students via its on-going series of educational activities.

left Volunteers at Bukit Timah & Central Catchment Nature Reserves helping to repair a biking trail.

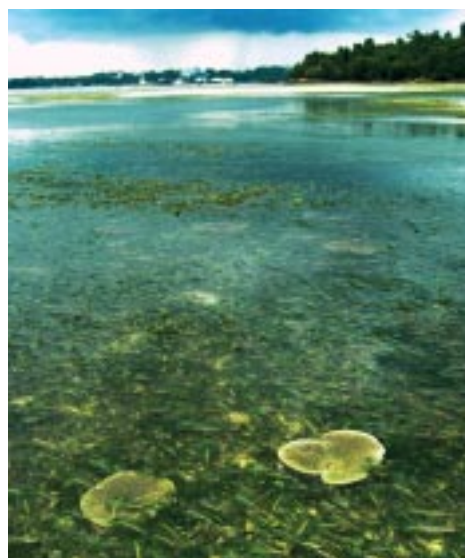
In the heart of the city, the Singapore Botanic Gardens Educational Outreach arm ran some 280 tours, talks and workshops for more than 10,000 participants from schools, corporations and the public. Highlights included the Orchid Mask Competition targeted at child-adult teams, held during the Singapore Orchid Festival, public talks and children's tours on 20 different topics which attracted more than 1,700 people at the Singapore Blooms Show (held at the Esplanade), and the four Christmas Children's Workshops held during the Christmas Fiesta in the Gardens.

New gardening workshops were also introduced to maintain and re-ignite the interest of the public in recreational gardening. These included 'Kitchen Gardens', 'Growing Begonias' and 'Hydroponic, Organic and Soil Farming - the Myths and the Facts'. New full-day workshops on 'Flowers At Work' and 'Lessons in Microscopy' were also introduced for children. These were conducted during the December 2003 school holidays.

The Botanic Gardens also continued to engage the community through its various volunteer activities. The Gardens now offers free guided rain forest tours for the public conducted by volunteers in English, Mandarin and Japanese. Volunteers also conduct monthly tours to the National Orchid Garden. In FY2003, more than 2,000 people benefitted from these volunteer-led tours. Volunteers are also involved in gardening works, providing visitor assistance at the information counter and even helping in the design of publicity materials for the Gardens' activities.



top More than 2,000 visitors benefitted from volunteer-led tours in the Singapore Botanic Gardens this year.



right Chek Jawa continues to enthrall visitors with its unique marine ecosystem.

Over at the Singapore Herbarium, home to more than 650,000 plant specimens, the year saw the completion of the computerisation and bar-coding of the more than 30,000 specimens collected from Singapore in the last 120 years. With this new facility, students, researchers and members of the public have the convenience of easy retrieval of information from this comprehensive catalogue. The Herbarium also focused on collecting herbarium specimens from conservation areas with the aim of rediscovering extinct species. Over a quarter of Singapore's flora is recorded as globally extinct (six species) or regionally extinct (542 species). So far, the Herbarium has relocated 33 of these species in the Bukit Timah Nature Reserve, Chek Jawa, Botanic Gardens Rain Forest and the Western Catchment Area. As the custodian of one of the world's most significant collections of dried and spirit-preserved plants, the Herbarium seeks to continually add to the collection by exchange and plant exploration, with staff taking part in a botanical expedition to Usun Apau, a remote area in Sarawak, Borneo.

Finally, at Pulau Ubin, staff and family members of Chevron Oronite Pte Ltd joined NParks and our volunteers to launch the Chek Jawa Reforestation Project on 9 November 2003. They rehabilitated and reforested areas damaged by past human activities. Over 400 saplings were planted, consisting of about 50 species native to Singapore, including a few species - *Hernandia nymphaeifolia*, *Neisosperma oppositifolium* and *Arytera littoralis* - that no longer occur naturally on our shores.



EDUCATING FOR THE FUTURE

Public education is an important component of NParks' outreach programmes. Over the years, NParks' programmes for promoting nature appreciation have grown in popularity and extent. One example is the Adopt-A-Park Scheme. Since its launch in 1997, NParks has worked with 146 organisations to care for greenery in the plots they have adopted and also in initiating projects at their adopted parks. Examples of such projects include development of trails, guided walks, staging of performances at parks, and designing of brochures for adopted parks.

In addition, the year saw seven new park adopters joining the scheme. They were River Valley Primary School, Greenridge Secondary School, Fairfield Methodist School, Saint Margaret Secondary School, the United World College of South East Asia, Holy Innocents' Primary School and Ngee Ann Polytechnic (Building and Environment Division's Green Volunteers). Many park adopter activities were organised, including a well-attended series of training sessions on insects found at the Sungei Buloh Wetland Reserve for students of Commonwealth Secondary School. They drew murals featuring the insects, which were displayed at the first shelter along the Visitor Centre Mangrove Boardwalk.

With the successful implementation of the Park Watch Scheme at Telok Blangah Hill and Bukit Batok Nature Park in 2002, the scheme was further introduced to four other parks in 2003. The four parks are Ang Mo Kio Town Garden West; East Coast Park; Pasir Ris Park and the Bukit Timah & Central Catchment Nature Reserves. The scheme has met with much success and has proven to be popular among the community. About 400 volunteers have come forward in a total of six parks to offer their services. The popularity of the scheme can be seen in the number of volunteers recruited for each park, and the growing number of events and activities organised and run by the volunteers themselves.

As with previous years, outreach and education on environmental awareness were the main theme during Clean and Green Week (CGW) 2003 which was launched by Prime Minister & Finance Minister⁹ Lee Hsien Loong at Zhenghua Square. As a joint organiser of the CGW, NParks planned some 170 activities and events during the week to promote nature appreciation and environmental awareness. These events include Adopt-A-Park activities, guided nature walks, reforestation, beach cleansing and park performances. One of the



top The Park Watch Scheme at Ang Mo Kio Garden West is one of the six launched in 2003.

right A joint project by NParks, the National Environment Agency and Southwest Community Development Council, the greening of Pulau Semakau with coastal tree species was graced by Mrs Yu-Foo Yee Shoon, the Minister of State, Community Development, Youth and Sports¹⁰.



⁹ Then Deputy Prime Minister & Finance Minister

¹⁰ Then Mayor of Southwest Community Development Council

highlights was the greening of Pulau Semakau with coastal tree species, a joint project by NParks, the National Environment Agency and Southwest Community Development Council that was graced by Mrs Yu-Foo Yee Shoon, the Minister of State, Community Development, Youth and Sports¹¹. The event attracted about 150 participants from grassroots organisations and schools, who together planted some 360 coastal trees on the island.



As in previous years, our park adopters and partners also joined in the CGW activities, taking part in 19 events. The greening effort continued with more than 1,200 trees planted by the various constituencies as Tree-planting Day projects during CGW 2003. In addition, some 60 guided walks were organised throughout the island. In particular, a guided walk was organised through the Pasir Panjang Nursery for the first time on 8 November 2003. It was well-received, and subsequent sessions were held - attracting some 700 members of the public for all 18 sessions. The participants learnt about the wide range of plants available in the nursery and they also acquired tips on the various propagation methods through demonstrations and hands-on activities.



from top to bottom

NParks staff sharing tips on plant propagation with participants during a guided walk through the Pasir Panjang Nursery.

Minister Mentor¹² Lee Kuan Yew planting a tree during CGW 2003, helping to green our Garden City.



ENHANCING OUR INTERNATIONAL LINKAGE

With the growing linkage between biodiversity conservation issues and trade, health and other sectoral and transboundary matters, NParks is increasingly being called upon by the government to provide timely, reliable and scientifically sound policies, guidelines and data on biodiversity conservation matters. NParks' initiatives on biodiversity conservation aim to safeguard Singapore's natural heritage, augment Singapore's reputation for good governance and improve Singapore's image in the international arena. For this, NParks has expanded its participation in international agreements and conventions for FY2003.

Our commitment towards the ASEAN regional initiatives included participating and contributing to meetings of the ASEAN Working Group on Nature Conservation & Biodiversity

¹¹ Then Mayor of Southwest Community Development Council

¹² Then Senior Minister

(AWGNCB) and the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) Project, which is co-funded by the EU and ASEAN. Collaborative biodiversity projects involving two or more ASEAN countries were initiated at these meetings.

NParks hosted the 13th AWGNCB Meeting in August 2003 in Singapore, which was attended by ASEAN delegates from eight member countries. A key outcome from this meeting was the nomination of the Sungei Buloh Wetland Reserve as an ASEAN Heritage Park. These ASEAN protected areas were identified by respective member countries, based on a set of criteria, for its scenic, cultural, educational, research, recreational and tourism value. The ASEAN Declaration on Heritage Parks was formally announced during the 9th ASEAN Ministerial Meeting on the Environment held in Myanmar in December 2003.

NParks was also actively involved in South East Asia LOOP of BioNet-International (ASEANET) which was founded to establish and sustain (within the ASEAN sub-region) realistic self-reliance in biosystematics and develop sustainable management practices of all biological and ecological systems. Through NParks' facilitation, Singapore participants had attended five meetings-cum-workshops to date.

On the international front, NParks represented Singapore at the 7th Meeting of the Conference of the Parties (COP7) to the Convention on Biological Diversity (CBD) in February 2004 in Kuala Lumpur. The issues discussed during the meeting ranged from protected areas as the primary means of halting biodiversity loss by 2010 to an international regime on access and benefit-sharing as related to the use of genetic resources, and also issues on invasive alien species. NParks will be implementing work programmes arising from the decisions of the recent COP7 meeting, as well as action programmes on the national agenda of the Singapore Green Plan 2012 (SGP2012).

NParks chairs, and is the Secretariat for the Action Programme Committee for Conserving Nature (APC-CN), which is one of the six Action Programme Committees under SGP2012. It comprises members from the 3-Ps (People, Private and Public sectors) and has developed 12 action programmes for the four main initiatives, namely conserving nature areas, knowing our biodiversity, making parks and nature accessible, and creating a biodiversity hub. These action programmes will be implemented over a three to five-year time frame.

NParks has also widened its responsibilities as Singapore's scientific authority on nature conservation to cover marine biodiversity conservation. With this new mandate, NParks will strengthen its working partnership with relevant government agencies, research institutes and the stakeholders with interest in marine biodiversity conservation.



ASEAN delegates from eight member countries were at Sungei Buloh Wetland Reserve for the 13th AWGNCB Meeting in 2003.