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**PROCEEDINGS**

# Study Tour in Recreation and Ecotourism Sites and Selected Protected Areas in Malaysia and Singapore

22–28 March 2008



# The Organizer

## Asean Centre for Biodiversity

The ASEAN Centre for Biodiversity (ACB) was established in 2005 by the Agreement of the Governments of the ASEAN Member States: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam, as an intergovernmental regional centre of excellence for policy formulation, capacity development, awareness raising and links with international donor community for the sustainable use of biodiversity. ACB envisions to contribute to the reduction of the current rate of biological diversity loss by enhancing regional cooperation, capacitating stakeholders, promoting awareness for biodiversity conservation and holding the regional database.

The Centre is the development and continuation of the ASEAN Regional Centre for Biodiversity Conservation (ARCBC). ACB pursues the strategies set forth in the Vientiane Action Plan (VAP) and the ACB Logical Framework through the following components: Establishment and Management of ACB; Policy Development and Coordination; Human and Institutional Capacity Development; Digital Knowledge Management; Leadership and Public Awareness; and Sustainable Financing Mechanism.



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# Partner Organizations

## Johor National Parks Corporation

The Johor National Parks Corporation (JNPC) was first established in 1989 to protect the natural resources and conserve the biological diversity of natural ecosystem areas in the State of Johor. JNPC has gazetted Endau – Rompin forest reserve in the State of Johor area as its first Johor National Park in 1996. The areas covered about 48,905 hectares within the district of Mersing and Segamat. Now, after 20 years, JNPC has managed to establish the following Johor National Parks under its management: Endau Rompin (Peta), Endau Rompin (Selai), Gunung Ledang, Tanjung Piai, Kukup Island and Mersing Island.



The total area now has been expanded with various unique ecosystems including tropical rainforest, mangroves, montane forest and coastal areas. Conservation effort, in cooperation with different organizations, is practiced in bringing up the management into mature stage. Moving forward through various challenges, JNPC continues to strive for the best protected area management in the State of Johor and hopefully soon in Peninsular Malaysia.

### **JOHOR NATIONAL PARKS CORPORATION**

JKR 475, Jalan Bukit Timbalan, 80000 Johor Bahru, Johor DarulTa'zim, Malaysia

Tel: 07 223 7471/07 224 2525, Fax: 07 223 7472

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## National Parks Board, Singapore

The National Parks Board (NParks) is responsible for providing and enhancing the greenery of the Garden City. Beyond green infrastructure, NParks is committed to enhance the quality of life through creating memorable recreational experiences and lifestyles. NParks manages parks, the park connector network and the lush roadside greenery in Singapore.

As Singapore's scientific authority on nature conservation, NParks monitors and coordinates measures to ensure the health of the designated nature areas. NParks is also the lead agency in the efforts to continually upgrade the Landscape and Horticulture Industry in Singapore. It works closely with industry partners to promote good work practices and create a thriving, creative, innovative and professional industry that will support Singapore's aspirations of being a City in the Garden.

The parks managed by NParks include: Singapore Botanic Gardens, Sungei Buloh Wetland Reserve, Bukit Timah Nature Reserve and the MacRitchie Trails in Central Catchment Nature Reserve.



### **NATIONAL PARKS BOARD**

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# Executive Summary

The Study Tour in Recreation and Ecotourism Sites and Some Selected Protected Areas in Malaysia and Singapore was conducted on 22-28 March 2008.

The Study Tour is a continuation of the Regional Workshop on Recreation, Tourism and Ecotourism held on 17-21 March 2008 in Malaysia. The participants were exposed to first-hand experiences on ecotourism management. Study visits to recreation and tourism sites were undertaken to learn from lessons and best practices in ecotourism management and conservation systems from other ASEAN Member States (AMS).

A total of 19 participants joined the Study Tour and the distribution is as follows: Brunei Darussalam–2; Cambodia–2; Indonesia–1; Peninsular Malaysia–8; Sabah, Malaysia–2; the Philippines–2; and Viet Nam–2. The participation from Indonesia joined the Malaysian tour only.

The participant from Indonesia joined the Malaysian tour only while 2 Malaysian participants did not join the Singapore tour.

The participants visited the following sites in Malaysia and Singapore:

- **Malaysia**

- Gunung Ledang National Park
- Kuala Lumpur Bird Park
- Aquaria in Kuala Lumpur
- Jonker Walk in Bandar Hill
- Melaka Zoo
- Mini ASEAN and Mini Malaysia
- Taman Buaya / Crocodile Farm
- Malacca Butterfly and Reptile Sanctuary  
(Taman Rama-Rama, Melaka)
- Pulau Kukup National Park
- Tanjung Piai Johor National Park

- **Singapore**

- Jurong Bird Park
- Singapore Night Safari
- Sungei Buloh Wetland Reserve
- Bukit Timah Nature Reserve
- Singapore Botanical Gardens and  
Orchid Gardens
- MacRitchie Trails
- River Cruise

The participants considered the Study Tour important for them because they were able to be exposed to several mainstream and ecological sites. Their first-hand experiences and the lessons learned provided them some guides and ideas on how to properly manage the national parks in their respective countries for ecotourism.



# Introduction

The World Conservation Union describes ecotourism as “environmentally responsible travel and visitation to natural areas in order to enjoy and appreciate nature and for any accompanying cultural features that provide conservation, have a low visitor impact and provide for beneficially active socio-economic involvement of local people.” On the other hand, The International Ecotourism Society (TIES) defines ecotourism as “Responsible travel to natural areas that conserves the environment and improves the well-being of local people” (TIES, 1990). For the TIES, ecotourism is about uniting conservation, communities, and sustainable travel. This means that those who implement and participate in ecotourism activities should follow the ecotourism principles, namely:

- a) minimize impact,
- b) build environmental and cultural awareness and respect,
- c) provide positive experiences for both visitors and hosts,
- d) provide direct financial benefits for conservation,
- e) provide financial benefits and empowerment for local people, and
- f) raise sensitivity to host countries’ political, environmental, and social climate.

“Sustainable tourism is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems.” (United Nations World Tourism Organization).

Ecotourism is an important economic activity in protected areas, be it a strict nature reserve, national park, natural monument, protected landscape and seascape or managed protected area.

During the Regional Workshop on Recreation, Tourism and Ecotourism conducted in Malaysia on 17–21 March 2008, one of the recommendations was to enhance the participants’ knowledge on ecotourism through study tours to gain experiences and knowledge from best practices and lessons learned on ecotourism from other ASEAN Member States. Through the study tours, participants will be exposed not only to the effective management and conservation systems applied in the ecotourism areas but will also provide them some solutions to problems that go with it.

*“Ecotourism is environmentally responsible travel and visitation to natural areas in order to enjoy and appreciate nature and for any accompanying cultural features that provide conservation, have a low visitor impact and provide for beneficially active socio-economic involvement of local people.”*

## Overview, Objectives and Mechanics of the Study Tour

The specific objectives of the Study Tour were to:

- Provide protected area staff and conservationists with first-hand experience and knowledge on the management of recreation, tourism and ecotourism sites;
- compare experiences and lessons learned in the ecotourism sites; and
- promote cooperation and networking among practitioners in recreation, tourism and ecotourism sites.

Before every guided tour of the sites, lectures were conducted, followed by questions and answers. The participants were required to fill out questionnaires about

the sites visited. The information in the questionnaires were compiled, analyzed and incorporated in the highlights of the Study Tour.

## Participants

A total of 19 participants attended the Study Tour: 12 protected area/nature conservation staff and officers; 2 urban planners; 3 researchers/technical officers; and 2 tourism officers.

Annex 2 shows the directory of participants.

## Study Tour Schedule

Day	Site Visited	Responsible Persons/Facilitator
March 22	Gunung Ledang National Park Kuala Lumpur Bird Park Aquaria in Kuala Lumpur Jonker Walk in Bandar Hill	JNPC Staff
March 23	Pulau Kukup National Park Tanjung Piai National Park	JNPC Staff
March 24	Melaka Zoo Mini ASEAN and Mini Malaysia Crocodile Farm Butterfly and Reptile Sanctuary	JNPC Staff
March 25	Jurong Bird Park Orchid Gardens Singapore Night Safari	NParks Staff
March 26	Sungei Buloh Wetland Reserve Singapore Botanical Gardens	NParks Staff
March 27	Bukit Timah Nature Reserve MacRitchie Trails River Cruise	NParks Staff
March 28	Departure	

# **Highlights of the Study Tour**

# Highlights of the Study Tour

## A. Malaysia

### Gunung Ledang National Park

**Staff Guides:** Shafida Binti Suhairi, Rosyafarid Bin Shamsuddin, Ilyas Bin Razak

For centuries, Gunung Ledang has been known as a profoundly spiritual place. Since the era of the Majapahit Empire, princes, warriors, naturalists, shamans, ascetics and practitioners of the occult, have been drawn to the mountain. Today, mystics still make their way up Gunung Ledang to retreat and meditate in search of a higher self. The locals also believe the mountain to be the enchanted abode of fairies and forest spirits, who on some occasions are said to lead a climber astray.



In 1854, when Alfred Russel Wallace, a contemporary of Charles Darwin and a fellow originator of the theory of evolution, visited Gunung Ledang, then known as Mount Ophir, he recorded the presence of tigers, rhinoceroses and elephants, as well as a host of plant, insect and bird species. The rhinos have long since been extinct in the area, but ecologically, the mountain remains as interesting as it was in Wallace's time. Its vegetation can be broadly classified into four zones – lowland dipterocarp, hill dipterocarp, lower montane, and montane ericaceous forest. These forests are the habitat of several animal species such as the barking deer, wild boar, white-handed gibbon and leaf monkeys. Some 163 species of birds from 36 families have also been recorded.

***"It's more than just a mountain. It's a living legend."***

Gunung Ledang National Park covers an area of 107 square kilometers in Tangkak in the State of Johore, and is 170 kilometers from Johor Bahru or about 2.5 hours drive from Kuala Lumpur. The peak of Gunung

Ledang (Mount Ophir), which is 1,276 meters above sea level, is the highest in Southern Peninsular Malaysia, and the 64th highest mountain in Malaysia. Although it is the 6th most difficult mountain to climb, it is still the most climbed mountain in the country. There is plenty to explore on the way to the summit, which is shaped like the bow of a ship.

There are two main routes up the mountain: one from Sagil, Johor, and the other from Asahan, Melaka. Climbers starting from Sagil can do so from either the Park Headquarters or from the Gunung Ledang resort. Whichever route is taken, climbers will traverse a

variety of terrain – pine forest, open spaces, up steep rocky faces, across streams and waterfalls –with rests at pit-stops bearing such colorful names as Lembah Majapahit (Majapahit Valley), Gua Kambing (Goat cave) and Bukit Botak (Bald Hill).

The plateau-like summit offers a clear breathtaking view of the Strait of Malacca and even the coast of Sumatra.

For those who are not into mountain climbing or trekking, they can do other activities such as insect/bird watching; camping; swimming; biking and enjoying a picnic close to the Sagil waterfalls; or participate in conservation and clean-up campaigns.

Park headquarters (Taman Hutan Legenda): The Park headquarters and its surrounding area is known as Taman Hutan Legenda, located at the foot of the mountain in Sagil. It has facilities for trekkers and conferences/workshop: chalets, dormitories, Wakaf (gazebo), Pondok (huts), teambuilding course (including rope tower), air-conditioned hall that can accommodate 100 persons, campsite, souvenir shops, and an open hall.

## Climate

Typically hot and humid, but cool and sunny as one goes higher up the mountain.

## Best time to visit

March-September, less favorable from mid-November to mid-January. Rainfall tends to be higher between October and February.

## Type of Tourism

Educational ecotourism; research

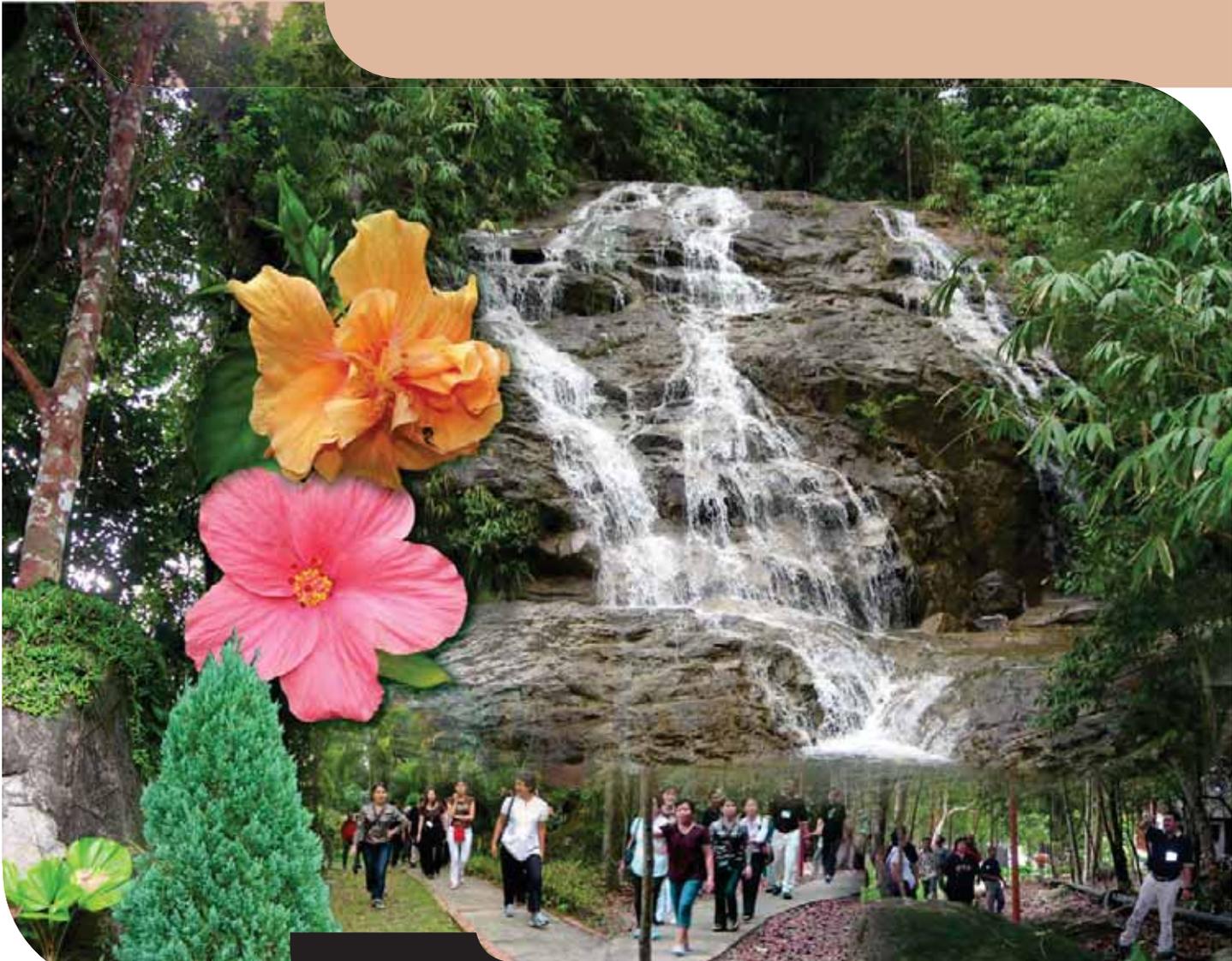
## Attractions

- Conducive for leisure walks, hiking, and picnics
- Natural vegetation/forest





*Flora found in Gunung Ledang*



*Guests and participants blaze the trail at Gunung Ledang*



## Facilities/Amenities

1. **Chalet** – There are 10 family chalets with air-conditioned rooms, a sitting area, kitchenette and most of the creature comforts minus television. These are ideal for families or other groups.
2. **Dormitory** – The dormitory can accommodate up to 100 persons with separate wings for men and women. It has prayer rooms, and toilet and bath facilities. It is ideal for budget travelers and students.
3. **Gazebo** – These are dotted around Taman Hutan Lagenda and at several scenic spots beside Sungai Air Putih. The gazebos are ideal for some quiet relaxation and contemplation, or small group discussions.
4. **Huts** – These huts have basic facilities, with just a sleeping platform to lie down on. Common toilet and bath facilities and a cooking area are located nearby.
5. **Visitor's Complex** – The building is set on grounds that have been beautifully landscaped with a host of Malaysian ornamental plants. The building is reminiscent of an old Malay palace. It currently houses the park office, an air-conditioned hall, a souvenir shop, a dining area and a verandah that overlooks Sungai Air Putih.
6. **Praying Room** – There is a separate praying room for Muslims.



## Best Practices

- Guided tour
- Proper waste management
- Well-maintained trails
- Signages

## References

*Actual visits and observation*  
*Flyer and Brochure: GunungLedang Johor National Park*  
*Website: [www.johorparks.com](http://www.johorparks.com)*  
*Wikipedia*

# Kuala Lumpur Bird Park

The Kuala Lumpur Bird Park or Taman Burung Kuala Lumpur is aptly described as the world's largest covered bird park or the world's largest free-flight, walk-in aviary. Covering approximately 20.9 acres of verdant valley terrain, the aviary is home to more than 2,000 birds that represent 200 local and foreign species. The Park is envisioned as a world-class zoological park.

The Park is divided into four zones. Zones 1 and 2 are the free-flight, walk-in aviaries; Zone 3 is the Hornbill Park, and Zone 4 is where the birds are placed in separate cages and mini aviaries. Zones 1, 2 and 3 closely resemble the birds' natural habitat. With this free-flight concept, the birds have adapted quite well and are already able to breed naturally.

The Kuala Lumpur Bird Park was officially opened in 1991, and managed by DBKL (City Hall) until 1st July 2001 when the Safari Bird Park and Wonderful SdnBhd took over its management.

This free-flight concept not only provides visitors an experience of life in the tropical rainforest, but it is also perhaps the best way to ensure the survival and species continuity of the birds. Research scientists and other bird lovers visit the aviary to study the birds and their behavioral patterns.

## Type of Tourism

Nature-based tourism; educational and recreational



*Participants pose for posterity at the Bird Park*



## Attractions

**Free-flight, Walk-in Aviary:** In this aviary, visitors can witness the courtship of the Indian blue peacock with its magnificent, colorful, 5-foot train. Or get a glimpse of the crowned pigeon, the largest pigeon species in the world having the size of a turkey. Visitors may also have the chance to see how yellow-billed storks gather fallen twigs to build nests in their nesting colonies, and doves, egrets and ibises feeding joyfully at the various feeding points. The free-flying birds' feeding takes place daily.

**Brahminy Land:** Located in Zone 1, the Brahminy Land exhibits a collection of Brahminy Kites, one of the popular local birds of prey in Malaysia. These magnificent birds give out sorrowful, mewing calls especially during late evenings. They forage both over water and land, feeding on small preys such as fish, rodents and even insects. Visitors can observe the Eagle's Feeding show that takes place daily at Brahminy Land.

**Flamingo Pond:** Also situated in Zone 1, the Flamingo Pond features several flamingo species such as the Greater and Lesser Flamingos gracefully sun-bathing in a beautifully landscaped pond complete with a scenic man-made waterfall. A special feature of these gregarious wading birds that originated from Africa is their pink feathers and

their natural ability to stand on one leg.

Pelicans, and other wading birds are also found in the Pond. Visitors can enjoy this picturesque sight while taking a break at the food and beverage kiosk, the Flamingo Terrace.

**Hornbill Park:** The Hornbill Park depicts the true tropical rainforest of Malaysia, with its verdant, lush, evergreen trees, some growing as high as a 10-storey building. This is home to the majestic pair of Rhinoceros Hornbill, one of the largest hornbill species in the world; the smaller hornbill species, the oriental pied hornbill; the hill mynas; and small doves. On the ground, visitors can find the Poland chicken and pearl Guinea fowls. Visitors can feed these birds during the Hornbill Feeding time daily.

Hornbill Park has a Hornbill Souvenir Shop, and a three-storey Hornbill Restaurant and Cafe, with a verandah overlooking the Park.

**Waterfall Aviary:** Located in Zone 4, this mini aviary features lush green trees and a 30-foot tall man-made waterfall. It is also the sanctuary of milky storks, one of the vulnerable and highly protected bird species in Malaysia.

**Oriental Birds Aviary:** Over 50 different species of oriental birds are found in this aviary. A really unique exhibit is the pair of greater bird of paradise (*Paradisaea apoda*).





According to legend, this magnificent bird is a messenger from heaven, having no legs and possessing certain mystical powers that can bring good fortune to its keeper.

Included in the bird collection is the Violet and Green Turaco from Africa, and three species of toucans: toco, channel-billed, and red-billed, which are regarded as the New World 'hornbill' species. These beautiful birds have a characteristic black plumage and brightly colored facial features.

**Flightless Birds:** The Park has four of the largest bird species in the world.

Visitors can see the collection of ratites—enormous flightless birds that have adapted well to the life on the ground that they have lost their abilities to fly. The Ostrich (*Struthio camelus*) for example, is known to be one of the fastest running creatures on earth, due to its powerful long legs. It can run at a top speed of 64 kilometers per hour. This is the largest living bird species in the world that can grow to a height of between 1.8 meters to 2.7 meters, with a body weight that could range between 90 to 155 kilograms. The ostrich egg is the largest of all eggs and can weigh about 1.3 kilograms. The content of one ostrich egg is equivalent to two dozens chicken eggs.

**World of Parrots:** This walk-in mini aviary was specially designed to accommodate the 20 species of parrots collected, consisting of macaws, cockatoos, lorries and parakeets.

Some of the parrots are placed in individual exhibits in pairs as part of



*Some Aves species found in the Park*

the breeding programme while others fly freely inside the aviary. There are rare and even critically endangered parrot species such as the Pesquet's Parrot, more popularly known as the vulturine parrot that can only be found in Papua New Guinea; the Moluccan Cockatoo, which is endemic to the Seram Island in Indonesia and now critically endangered due to illegal trapping and habitat destruction; and the Congo African grey parrots, widely known to be the most intelligent parrot species.

**Bird Gallery and Education Centre:** The Centre provides information about the many aspects of bird life.

**The Amphitheater:** The semi-open air amphitheater is located in Zone 4 of the Park. Its

main attraction is the daily KL Bird Park Bird Show, happening at 12.30pm and 3.30pm. The Amphitheater has a 350-seating capacity and the daily Bird Show is free-of-charge with first-come-first-served seating arrangements.

**Feathered Friends Photo Booth:** Visitors can have their pictures taken with any of the tame and trained birds: Tango, the scarlet macaw; Samad, the wreathed hornbill; Kitty, the Malay-eagle owl, or Ella, the chestnut-bellied hawk eagle.

### Best Practices

- Signages all over the place to guide visitors.
- Birds are properly grouped and tended.
- Well-maintained aviary
- Bird show

### References

*Actual visit and observation  
Brochure: Kuala Lumpur Bird Park  
[www.klbirdpark.com](http://www.klbirdpark.com)*

# Aquaria in Kuala Lumpur



With an area of 60,000 square feet, the Aquarium exhibits over 33,000 (283 different species) aquatic and land-bound animals from around the world. Visitors can explore and experience a fascinating world of the ocean and beyond through a multi-sensory voyage that aims both to entertain and educate.

Aquaria KLCC was conceptualized and built, based on the journey of water from land to sea. Visitors can journey from misty mountains down majestic rivers, through lush rainforests and water-logged mangroves. Or dive deeper to navigate through colorful coral reefs or deeper into the ominous deep blue sea.

## Attractions and Facilities

**Evolution:** Upon entering the aquarium, visitors are greeted by a stylish and colorful gallery that enables them to travel back in time to discover the evolution of fish – the world’s first vertebrates.

**Weird and Wonderful:** Visitors can watch some of the most unusual, unique and enchanting marine animals such as the sea horse, frog fish, eels and other enchanting strange life forms of the ocean.

**Aqua Theatre:** Visitors can view the spectacular ocean reef and its inhabitants through a large acrylic window, and witness daily fish feedings and death-defying diving sessions with the sharks.

**Underwater Tunnel:** This tunnel is the climax of the ‘Journey’. A moving walkway or walkalator inside the 90-meter acrylic tunnel takes visitors into the depths of the brilliant ocean, a view previously accessible only to divers. Visitors can also watch the trained divers and aquarists hand-feeding the fish, including rays and large sharks. A hidden shipwreck can also be seen slowly being colonized by inquisitive reef inhabitants, gradually becoming part of the coral reef.

**Interactive Kiosks:** The interactive kiosks are designed to educate and entertain visitors of all ages through several

facts and games. Visitors will enjoy discovering fascinating facts about aquatic life.

**Aquaria Gift Shop:** Visitors can purchase souvenir items at the gift shop, or take photos of themselves against pre-designed aquatic-theme backdrops at photo-simulation kiosks. Aquaria KLCC is wholly owned and managed by the Aquawalk Sdn Bhd.

## Type of Tourism

Mass tourism, educational, nature-based tourism

## Best Practices

- The interactive photo-simulation kiosks are good educational instruments for visitors especially school children.
- The aquaria staff guide visitors on how to feed the fish and whales.

## References

Actual visit and observation  
Brochure: Aquaria KLCC  
[www.klaquaria.com](http://www.klaquaria.com)





Participants experience the beauty of the underwater world



## Jonker Walk in Bandar Hill

On 19 June 2000, the Melaka State Government launched the concept of Jonker Walk, using the richness of cultural heritage values to realize a live touristy culture in this historical street.

Jalan Hang Jebat (formerly known as Jonker Street), once known as the rich man's street is now a living proof of Mallacca's rich bab-nyoya heritage, cuisines and, antiques, and curios. This street is where visitors can do the "Jonker Walk", popularly known for its cultural flea market with a local flavor. The buildings have been immaculately constructed with elaborate carvings on its pillars and walls.

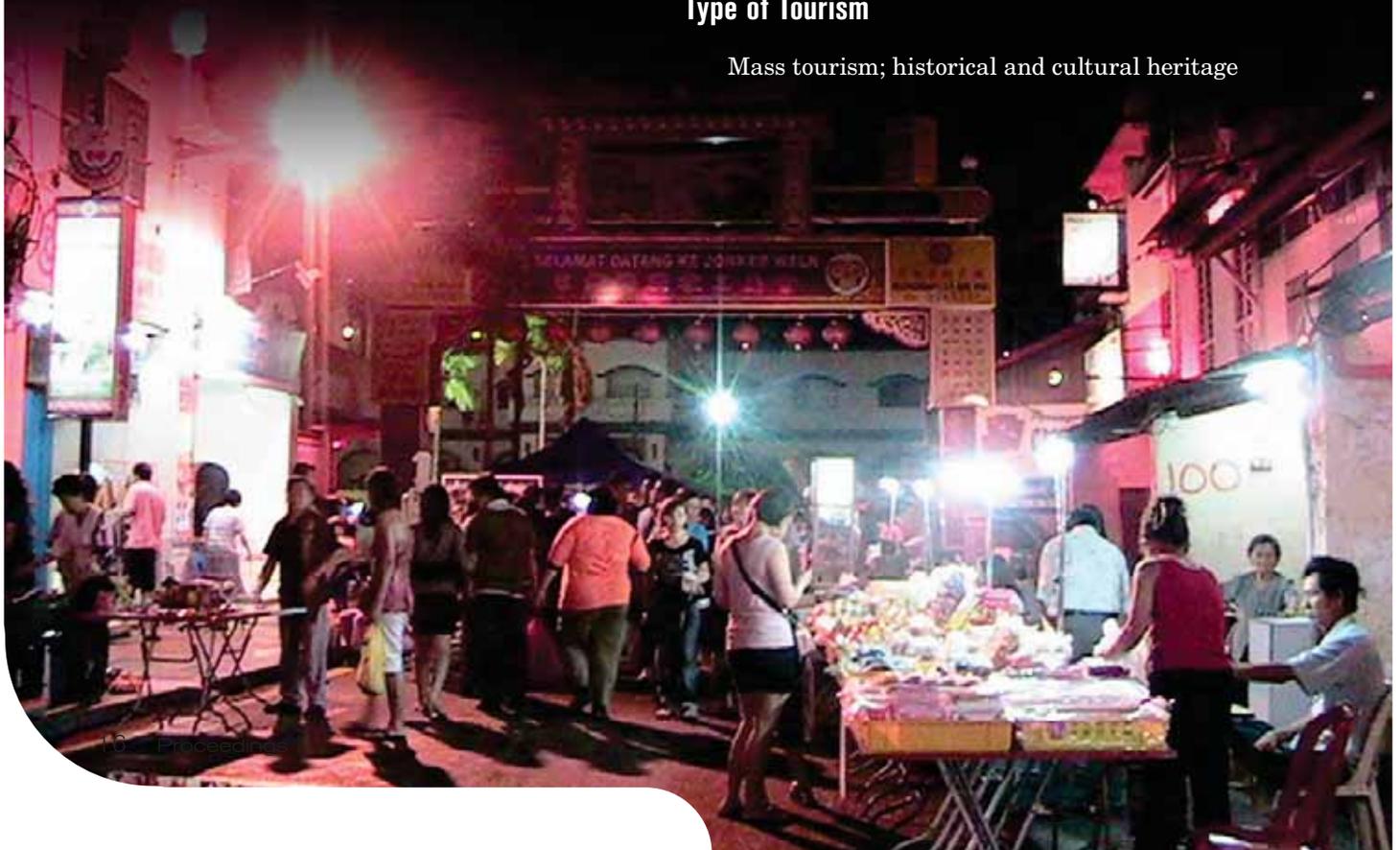
"Jonker Walk" is a highly recommended historical tour wherein visitors can enjoy leisurely walks / strolls around the streets, while viewing the interesting and unique architecture. Cultural

shows are held weekly (Saturdays and Sundays) along the walk. On Fridays and weekends, Jonker Street becomes a Cultural Walk, when the street is closed to traffic from 6pm-11pm (Saturday) and 11am-11pm (Sunday) so that visitors can walk the streets safely.

Famous antique collectors have rated this place as one of the best places to hunt and bargain for antiques. Authentic artifacts and relics, some dating as far back as 300 years, can be found among other interesting and precious collectibles. Traders line the pedestrian street and set up stalls to sell and display products that reflect the cultural colors, such as antique copper coins, local and ethnic or traditional food, unique arts and crafts, souvenirs, ornamental jewelry, and wooden clogs.

### Type of Tourism

Mass tourism; historical and cultural heritage



## Best Practices

- Free-for-all trading and selling
- Preservation of cultural heritage despite urbanization and development

## References

*Actual visit and observation*  
*Flyer: Jonker-Walk in Bandar Hill*



*Houses and buildings with historical structure/design along Jonker Walk converted to stores, galleries, restaurants and bars*



*Night market at Jonker Walk*



# Melaka Zoo

The 54-acre Zoo Melaka, an open-concept zoo, is the second largest zoo in Malaysia, and rated as one of the best zoos in Malaysia. Established by the State Government in 1963, the Zoo has been managed by the Department of Wildlife and National Parks, Peninsular Malaysia (PERHILITAN) since 1979.

Today, the Zoo houses more than 1,500 animals, representing 200 different species of birds, mammals, reptiles and amphibians that are found only in Southeast Asia and Africa. Many of these species are endangered or threatened. Zoo Melaka now plays an important role in wildlife conservation in Malaysia while providing recreational opportunities for people from all walks of life.

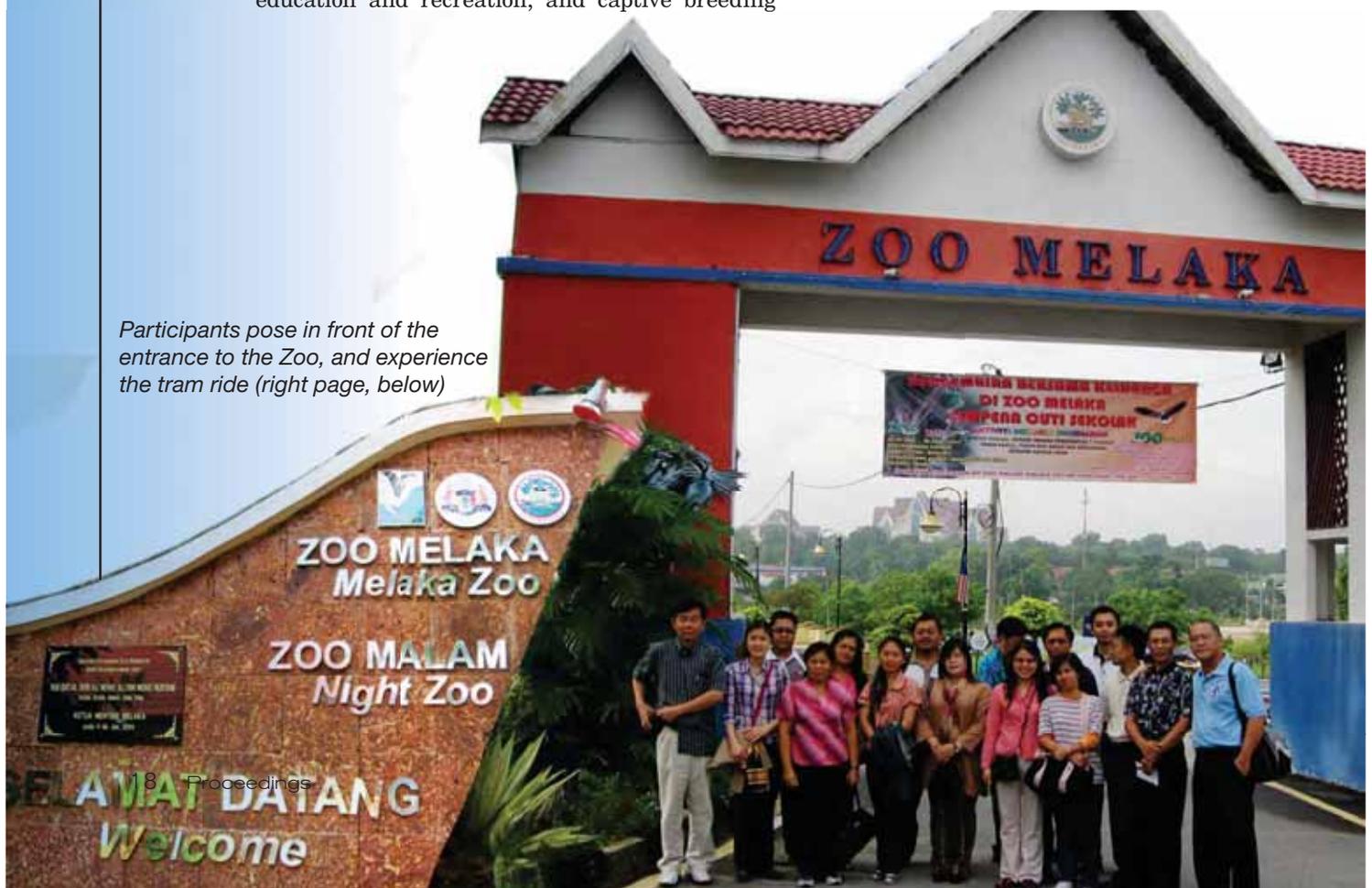
Located approximately 13 kilometers from the center of Melaka, it is the first zoo in the region to exhibit the endangered Sumatran rhinoceros and gaur. The major attractions are the Malayan gaur, serow, and the Malayan tiger. Melaka zoo adopted an open concept and maintains the natural green environment. It also functions as a center for wildlife research, conservation breeding, zoo education center, and a popular tourist destination. The major functions of the zoo are for research, education and recreation, and captive breeding

especially for threatened species such as the serow and sambar deer that are now successfully bred in the zoo.

The Zoo is open daily, including public holidays, from 9:00am to 6:00pm.

On Fridays and Saturdays and public and school holidays, the Zoo opens to the public at night from 8:00pm–10:00pm, when visitors can explore the zoo amidst lighted night trails or sit back and enjoy the tram rides. These night adventures provide the unique opportunity to discover and observe the behavior of the nocturnal animals. Through the use of moon-lighting technique, visitors are able to view over 500 nocturnal animals in their natural habitats.

*Participants pose in front of the entrance to the Zoo, and experience the tram ride (right page, below)*



Some of the animals at Melaka Zoo



The Zoo also offers elephant rides, interaction with elephant, and other features such as multi- animal/wildlife show; and “free-ranging“ orangutan.

### Type of Tourism

Nature-based; educational; recreational

### Best Practices

- Successful breeding in captivity.
- The zoo is an experimental station and the animals serve as live experimental specimens.
- Tram rides for visitors.
- Provides day and night observation of birds and animals. This gives visitors a good opportunity to closely watch their development.



### References

*Actual visit and observation*  
*Brochure: The Amazing Wildlife Splendour in Zoo Melaka*  
[www.zoomelaka.gov.my](http://www.zoomelaka.gov.my)

## Mini ASEAN and Mini Malaysia

Taman Mini Malaysia / Taman Mini ASEAN is a large theme park, located along the Air Keroh trail of attractions. Situated 15 kilometers from Melaka Bandaraya Bersejarah, the Mini ASEAN and Mini Malaysia Park was developed to share knowledge and cultivate interest among the visitors about the history, cultural heritage and traditional architectural characteristics of each ASEAN Member State and the 13 states of Malaysia.

It features impressive replicas of the different types of traditional houses from the 13 states of Malaysia as well as the typical abodes of the ASEAN countries. Inside each house, one will find various handicrafts originating from each state or country. Handicrafts have long been a source of income for local people in almost every country. The handicrafts also serve as decoration and the life-like wax dummies, garbed in their respective traditional costumes, are the main features in those houses.

These traditional houses displayed in the theme park complement the formation of the lake that blends with the untouched virgin forest, and provides a



*Some of several attractions depicting AMS culture and heritage*

peaceful, pleasant and relaxing place for seminars, training courses and other homestay events.

The Park has a hotel and chalets offering packages for seminars/training, and other homestay events including facilities for team-building activities. Among the activities that visitors can do around the Park are fish feeding, and joining the basic dance workshop, or trying out the traditional games and cultural dances.

Taman Mini-Malaysia, a unique and enchanting theme park, is a good place to visit especially for those who are constrained by time to visit all the 13 states of Malaysia. At the same time, it is a perfect place to orient oneself about the culture, customs and traditions of the local people before embarking on a tour of all the 13 states of the country. The 13 life-size authentic Malaysian houses, representing the 13 states of Malaysia, were crafted by master builders, and are the exact life sizes and designs of the original ones. The houses



represent each of the 13 state's cultural heritage and traditional architecture, and are furnished with each of the state's arts and handicrafts and other items depicting the state's culture. Life-size figures garbed in their native garments, inhabit each charming house on stilts.

Taman Mini-ASEAN: An extraordinary theme Park by itself, Mini-ASEAN is a rare treat for those who want to become oriented and experience the rich history and culture of these countries that are visible thru the remarkable features of the houses. This Park displays the unique cultural elements of each of the ASEAN Member States: Brunei, Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines, Thailand, Singapore, and Viet Nam. It comprises 12 ASEAN traditional houses.

### Type of Tourism

Mass tourism; educational

### Best Practices

The display of unique cultural elements of ASEAN Member States and the 12 ASEAN and 13 Malaysian traditional houses provide visitors a "one-stop" glimpse or backgrounder of the ASEAN cultural heritage.

### References

*Actual visit and observation*  
*Brochure: Mini ASEAN and Mini Malaysia*



*Traditional houses in Malaysia*



# Traditional houses of ASEAN Member States



Lao PDR



Thailand



Brunei



Indonesia



Cambodia

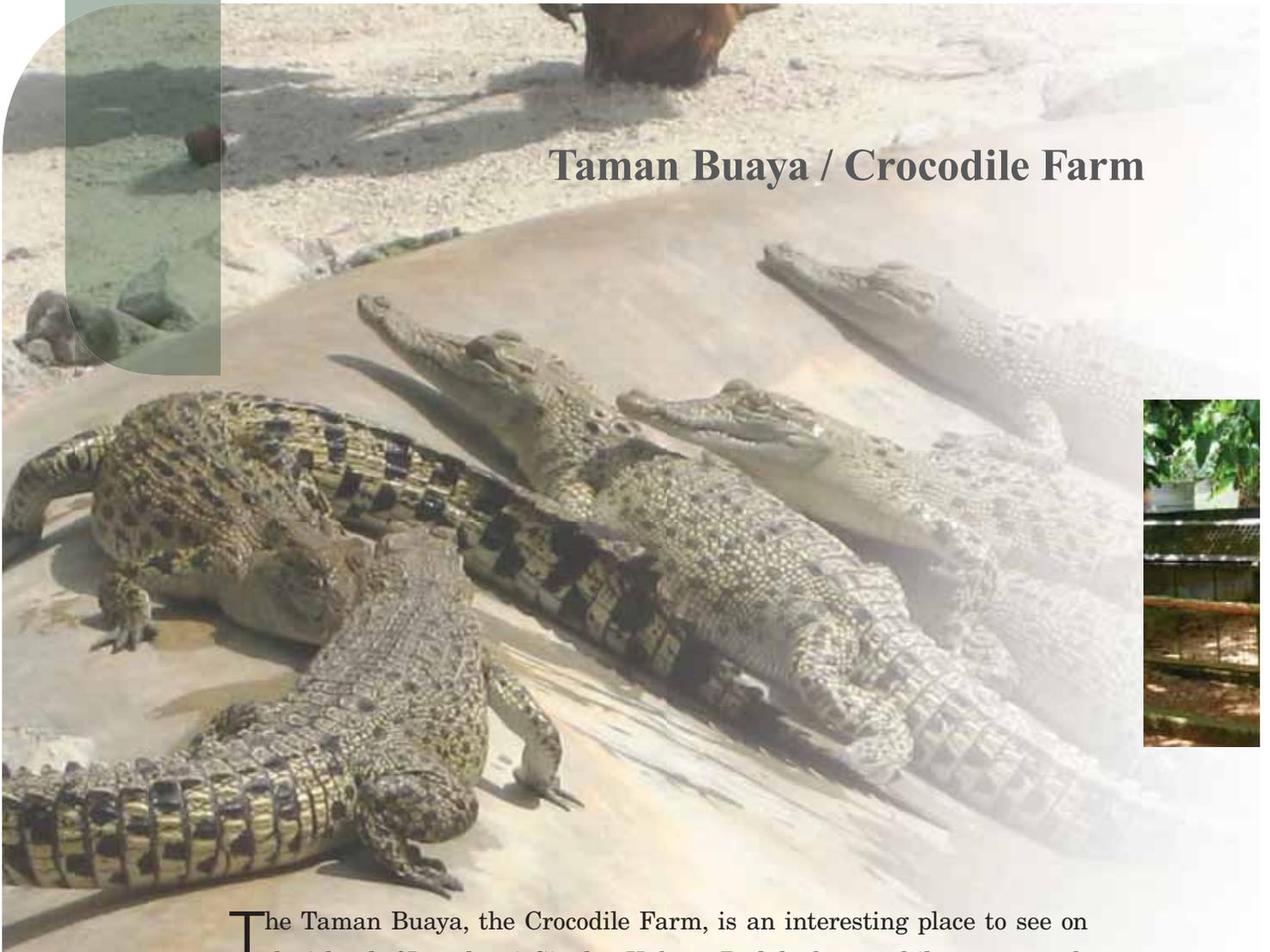


Philippines



Singapore

## Taman Buaya / Crocodile Farm



The Taman Buaya, the Crocodile Farm, is an interesting place to see on the island of Langkawi. Sited at Kubang Badak about 32 kilometers north of Kuah Town, this 20-acre farm is estimated to have over 3,000 crocodiles including many rare ones and some alligators. It is registered with the Convention on International Trade and Endangered Species (CITES). In the farm, the crocodiles are kept in different ponds: Periodical Pond, Breeding Pond, Bridge Pond, Feeding Pond, Jumping Pond and Show Pond.



The Species Pond is the place to see numerous species of crocodiles and alligators. The Feeding Pond is where visitors can witness the feeding frenzy of these giant reptiles. As the name suggests, the Breeding Pond is the site where the crocodiles mate and nest. There is a Bridge-over-Pond where visitors can get a closer look at the crocodiles. The farm also features the oldest inmate born without teeth, the

28-year-old Bujang Kawi, which is about 4 meters long and weighs about 454 kilograms.

The Farm has a restaurant and a souvenir shop, and an exhibition centre where

visitors can browse around to view and learn about the life cycle of a crocodile as well as photographs of every possible aspect of the species. Visitors may also have the chance to watch the wrestling between a man and a crocodile.

Crocodile Species at Taman Buaya Melaka include: Estuarine/Salt Water crocodile (*Crocodylus porosus*), Buaya Tembaga (Local Crocodile), False Gharial/Gavial (*Tomistoma schlegelii*), Buaya Jenjulong (Local Crocodile), Siamese crocodile or Buaya Siam dari Thailand (*Crocodylus Siamesis*), Spectacled Caiman (*Caiman crocodilus (crocodlus)*), Buaya “Caiman” dari Mexico, Mugger/Marsh Crocodile (*Crocodylus palustris*), and American Alligator (*Alligator mississippiensis*).

There is a regular crocodile show every day.



The success of this crocodile farm is ascribed to one man, who as a young boy from a fishmonger family about 50 years ago started with a small pond when a fisherman gave him crocodile hatchlings that they caught in their nets. Since then, this boy gradually managed to build up his career breeding more than 3,000 crocodiles babies annually.

Other crocodiles have been waxed for display purposes along the entrance. Visitors can have their pictures taken with the baby crocodile “Diana”, which was featured in the film “Anna & The King”; go on horse and pony rides; ride the mini bikes (for tiny tots); visit the haunted house; enjoy the train rides into Jurassic World, and dine at the family restaurant.

Since its opening in 1987, this Crocodile Farm has been expanded and now includes a section for other reptile species.

## Type of Tourism

Mass tourism; nature-based tourism

## References

*Actual visit and observation*  
*Brochure: Crocodile Farm*  
*Crocodylians Natural History and Conservation*  
*website: <http://www.flmnh.ufl.edu/cnhc/csl.html>*



# Malacca Butterfly and Reptile Sanctuary

## (Taman Rama-Rama, Melaka)

The Sanctuary, located in Ayer Keroh, Melaka, comprises a butterfly aviary, a bird aviary, a reptile aviary and several other attractions such as the common marmoset – a small monkey that measures 8-inches, white-handed gibbons, black giant squirrels, bear cats, tapir, emu, ostrich, and cassowary

**Butterfly Aviary:** Opened to the public on 01 February 1991, the butterfly aviary is home to more than 30 butterfly species, with an insect museum that has a collection of more than 400 specimens. There is also a nursery and breeding area for the butterflies, which is an imitation of the butterfly's natural habitat. It includes more than 15,000 plants from 100 species that have been used to recreate a Malaysian rainforest atmosphere.

**Reptile Aviary:** The Sanctuary also exhibits the biggest collection of reptiles, including crocodiles, alligators, tortoises, lizards, iguana, monitor lizards and more than 20 different species of snakes in the whole of Malaysia.

**Bird Aviary:** The Sanctuary also houses a good number of common and exotic birds such as lovebirds, white peacocks, hornbills, owls, pea fowls and parrots.

### Facilities/Amenities

Eateries, souvenir/antique shops, large parking lots

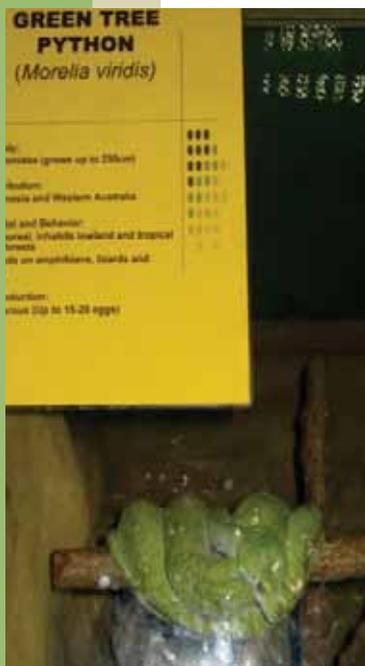
### Type of Tourism

Nature-based tourism

### References

*Actual visit and observations*

*Brochure: Malacca Butterfly and Reptile Sanctuary*





# Pulau Kukup Johor National Park

**Staff Guides:** Afendi Bin Abdullah, Hardy Anwar

Pulau Kukup is one of the largest uninhabited mangrove islands in the world, and the only one in Johor waters. An old Malay legend has it that the Island was once the abode of five celestial princesses. Their peaceful existence was shattered one day when one of them fell in love with a sailor, and against all advice, eloped. A dreadful curse befell the place, and the sea engulfed the island. The island later re-emerged, and today, unlike other islands around Johor, this one was totally covered in mangroves.

People have tried to settle on the Island, but without success. Some say it is because the Island is the gateway to the spirit world. Whatever the case may be, the island remains uninhabited to this day.

Pulau Kukup covers approximately 647 hectares, and is surrounded by 88 hectares of mudflats. It lies a stone's throw away from the 150-year old





fishing village of Kukup in Pontian, an area steeped in history. An important trading post at the turn of the century, Kukup is synonymous with tales of vanquished pirates, enterprising early pioneers, an abrupt decline in fortunes that almost reduced the place to a ghost town, and its subsequent revival as a modern-day tourist hub.

The Island shelters an extraordinary array of wetland-associated plant and animal life as well as many kinds of creatures, from the playful mudskipper and the industrious crab, to the wild boar and her litter.

Pulau Kukup's status as a remote hinterland



changed in the 1990s, when scientists began focusing on the island's rich biodiversity and unique ecological characteristics. In March 1997, Pulau Kukup was gazetted as a National Park.

**“Wetland of International Importance”**

In January 2003, the island was granted the status of “Wetland of International Importance” or RAMSAR Site, by the Geneva-based Ramsar Convention Bureau.

Johor National Parks Corporation manages the National Park.

**Park Facilities**

A visit to the Park begins at the Visitor Information Centre, located opposite the bus station in Pekan Kukup. The Centre provides information about Pulau Kukup and nearby Tanjung Piai Johor National Park, and displays artifacts and photographs depicting Kukup's rich social history.

Other facilities include the observation towers, a boardwalk, a suspension bridge, and the six-storey aery. The six-storey aery offers a bird's eye view of the Island, and



from the Park's popular suspension bridge, one can appreciate the rustic beauty of Kukup on the mainland.

The staging point to the island is at the Kukup Jetty, or the jetty at the nearby High King Restaurant.

### Type of Tourism

Ecotourism

### Best Practices

- Without human habitation, mangroves grow luxuriantly and mangrove-associated species are many.
- The observation towers, the boardwalks and other facilities provide visitors very good access to the beauty of Kukup.

### References

*Actual visit and observations*  
*Brochure: Pulau Kukup Johor National Parks*  
[www.johorparks.com](http://www.johorparks.com)

Participants enjoy a boat ride (bottom) and pose for posterity in front of the Park's landmarks (facing page).



# Tanjung Piai Johor National Park, a RAMSAR Site

**Staff Guides:** Anne Majanil, Suraya Hani Abdullah, Puteri Janiaton Jani, Anas Fatihi Zakaria

Tanjung Piai Johor National Park lies at the southernmost tip of mainland Asia, in the district of Pontian, Johor. The National Park covers an area of over 926 hectares, of which 526 hectares are coastal mangroves. Its 8-kilometer shoreline borders the Straits of Malacca.

The Park shelters an extraordinary array of flora and fauna. More than 20 true species of mangrove and 9-mangrove-associated species thrive there. As the waters swell and subside with the tides, a great expanse of mudflats is revealed, teeming with crabs, cockles, lizards and the mudskipper. Among the trees, the Long-tailed macaque and the Dusky-leaf monkey can be seen or heard. Many birds in migration stop over to rest and re-fuel, before resuming their incredible migration across the East Asian Flyway.



*Participants take some time out for a group photo at the entrance of Tanjung Piai and at the Southernmost tip of Mainland Asia*

A visit to Tanjung Piai Johor National Park, which is managed by the Johor National Parks Corporation, is more than just a walk through a nature reserve. The Park has facilities and lots of activities designed to cater to individuals or groups. Visitors can do several activities such as: bird watching; fishing; viewing the sunset; fishing; or join guided tours along the Park trails; and watch the migration of raptors.

### Type of Tourism

Educational; recreational, nature

### Facilities/ Amenities

Facilities found within and around the visitors complex include: jetty; information gallery; observation towers; campsite; fishing platform; boardwalk; and an obstacle course.

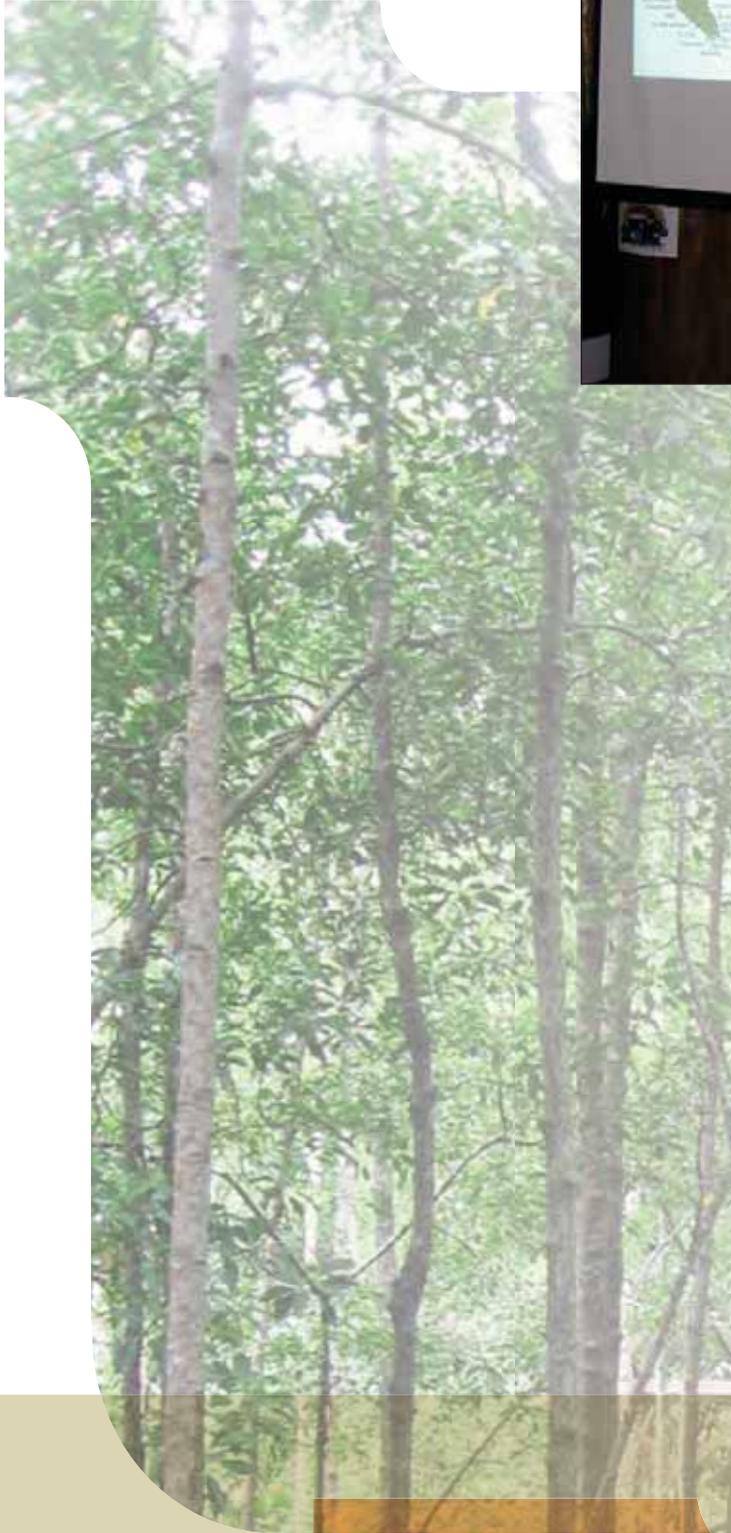
### Best Practices

- Guided tour
- The observation towers and other facilities provide comfort and better appreciation of the Park.

### References

*Actual visit and observations*  
*Brochure: Tanjung Piai Johor National Park*  
[www.johorparcs.com](http://www.johorparcs.com)





*Participants are given a briefing on Tanjung Piai*



Boardwalks at Tanjung Piai



Facilities and signages at the Park





# Singapore

## Jurong Bird Park



With over 9,000 birds belonging to more than 600 species, Jurong Bird Park is one of the world's best in the conservation and display of birds in a natural setting.

It is known worldwide for being the first to breed in captivity the endangered 12-wired Bird of Paradise.

Jurong Bird Park is home to the world's largest collection of Southeast Asian hornbills, the world's tallest man-made waterfall and an air-conditioned Panorail that transports visitors to the world's largest walk-in aviary – Waterfall aviary. The Park also features unique shows like the “Birds and Buddies”, and “Birds of Prey”.

Other attractions include the Lory Loft, the world's largest walk-in flight aviary, with over 1,000 free-flying lorries. It has an area of 3,000 square meters and is nine storey's high.

The Waterfall Aviary is the world's largest walk-in aviary with more than 1,500 free-flying birds from over 60 species. The waterfall is the tallest man-made waterfall in the world.

**Penguin Expedition.** There are more than 200 penguins living here. The five species on exhibit are the Humboldt, Rock hopper, Macaroni, Fairy and King penguin.

**World of Darkness:** Asia's first nocturnal bird house in natural surroundings, features a system of reverse lighting, converting day to night and vice-versa. On display are 60 birds

from 17 species, like the night herons, fish owls, and snowy owls.

**Pelican Cove:** Visitors can see all seven species of pelicans, including the endangered Dalmatian pelican. Watch them at the world's first underwater viewing gallery for pelicans, scooping for fish at feeding time.

**African wetlands:** This is where visitors can experience Africa in one of the world's greatest wilderness wetlands, which is home to unique bird species such as the saddle-billed storks, shoebills, and also assorted schools of African fishes.

**Jurong Bird Park Panorail.** This is a fully air-conditioned ride that presents a panoramic view of Bird Park, while making stops at the Main Station, Lory Station and the Waterfall Station.

## Facilities/Amenities

The Bird Park has a restaurant, an ice cream parlor, and a themed-store boutique.

## Type of Tourism

Nature-based tourism

## Best Practices

- Birds fly freely in a natural setting.
- Fully air-conditioned panorail provides visitors with a panoramic view of the Park.

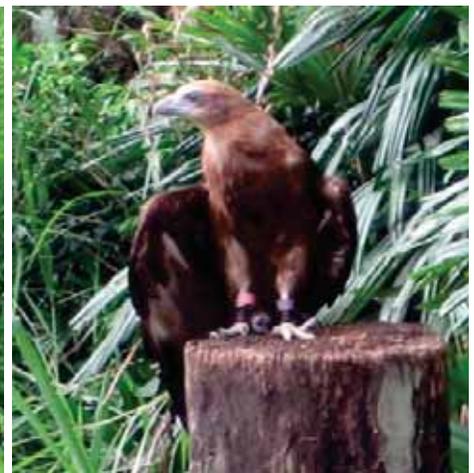
## References

*Actual visit and observations*

*Brochures: New! Jurong Bird Park*

*Map of Jurong Bird Park*

[www.birdpark.com.sg](http://www.birdpark.com.sg)





# Singapore Night Safari

Night Safari is the world's first wildlife park with a night view of over 1000 nocturnal animals of about 130 species playing and preying in the 40-hectare dense secondary forest. Visitors can explore the wildlife park using any of the three walking trails, or take a 3.2-kilometer tram ride along two loops that cover terrain ranging from the rocky Himalayan foothills to the grassy plains of Equatorial Africa.

More than being a wildlife park, Night Safari is committed to the conservation of rare and endangered species such as the Malayan tiger, babirusa, Malayan tapir, Indian rhino and the anoa – the world's smallest buffalo species. Renowned zoologists have long lauded Night Safari as one of the most aggressive and successful conservationists in the region.

Since its inauguration in 1994, Night Safari has been a seven-time winner of the Singapore Tourism Awards' Best Leisure Attraction Experience.

## Features /Attractions

**Creatures of the Night Show:** Visitors can experience one of the world's most exciting nocturnal animal shows - 30 minutes of non-stop night action. The show demonstrates the behavior and incredible predatory and survival skills of animals such as binturongs, otters, raccons, owls, wolves, hyenas and servals.

**Tribal Dance performance:** Awe-inspiring Thumbuakar tribal performers from the rain-forests of Borneo demonstrate several tribal dances and acrobatic acts, and their skills in fire-eating, and blowpipes.

**Walking Trails:** Visitors can take a brisk stroll along the spooky Mangrove Walk, or any of the

Night Safari's three walking trails: the Fishing Cat, Forest Giants or Leopard Trails, and be thrilled by the arboreal flying squirrels gliding in mid-air. Each trail averages half a kilometer long and can be covered in 20 minutes.

**Tram Rides:** The 45-minute tram ride covering 3.2 kilome-

ters takes visitors across a landscape that dramatically changes, from the Himalayan foothills to the jungles of Southeast Asia and Africa. Endearing antics of rhinos, elephants, giraffes, tapirs, tigers and lions, along with a variety of birds can be seen along the way. The setting is bathed in shadowy half-light, so the creatures are largely oblivious to a visitor's presence.

## Facilities/Amenities

The Night Safari offers five choices of restaurants/dining places.

## Type of Tourism

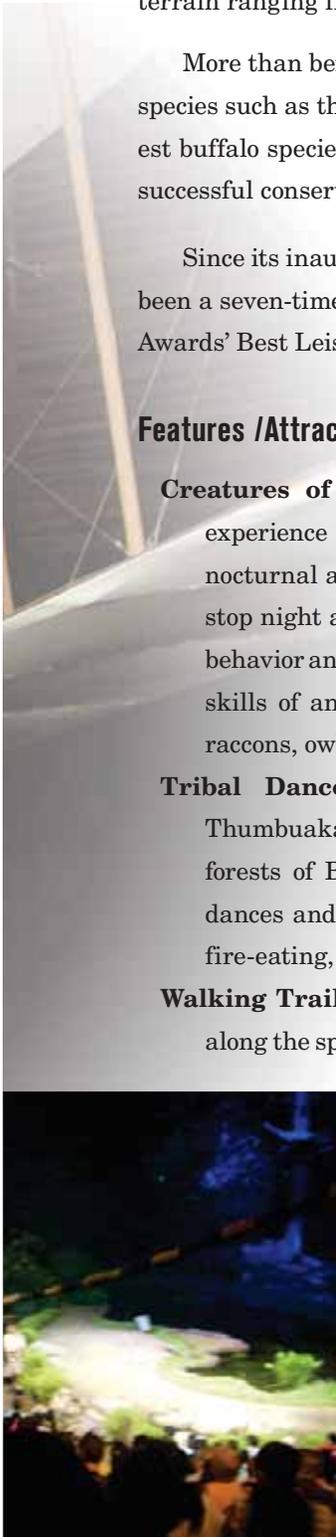
Nature-based tourism

## Best Practices

- Guided tour on the tram ride.
- The walking trails have easy-to-follow directional signs.
- Bird and animal shows
- Tribal dance shows
- Good restaurants

## References

*Actual visit and observations*  
*Brochure: Map of Night Safari*  
[www.nightsafari.com.sg](http://www.nightsafari.com.sg)



# Sungei Buloh Wetland Reserve

**Staff Guide:** Ramakrishnan s/o R Kolandavelu

The “Living Classroom” aptly describes the Sungei Buloh Wetland Reserve that is set in 130 hectares of mangroves, mudflats, ponds and secondary forest. The Reserve is a rare oasis of natural wonders and tranquility, home to unique plants and animals, as well as wintering ground for migratory birds.

Since January 2002, Sungei Buloh has been protected as a nature reserve in recognition of the valuable biodiversity that it harbors. It is a member of the East Asian-Australasian Flyway Partnership and Singapore’s first ASEAN Heritage Park.

**Mangrove Boardwalk:** Visitors can take a 30-minute walk along the 500-meter boardwalk that passes through the mangrove.

**Route 1:** This is a three-kilometer boardwalk that takes one to two hours walking, while enjoying the tranquility and the serenity of the mangrove habitat.

**Route 2:** Approximately five kilometers long, this two- to three-hour boardwalk is the Reserve’s longest boardwalk that leads to the mangrove arboretum.

**Route 3:** This is a seven-kilometer trail that visitors can walk in 4-5 hours. The inhabitants of the freshwater habitat await visitors.

A 10-minute audio-visual show presents an overview of the Reserve. The National Parks Board conserves this wetland through prudent management, research and education.

## Type of Tourism

Ecotourism

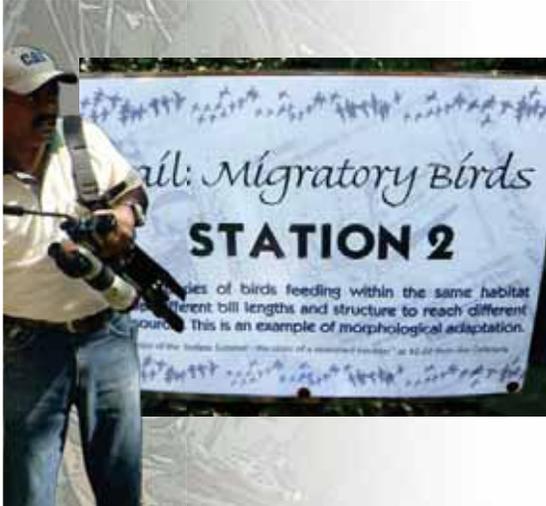
## Best Practices

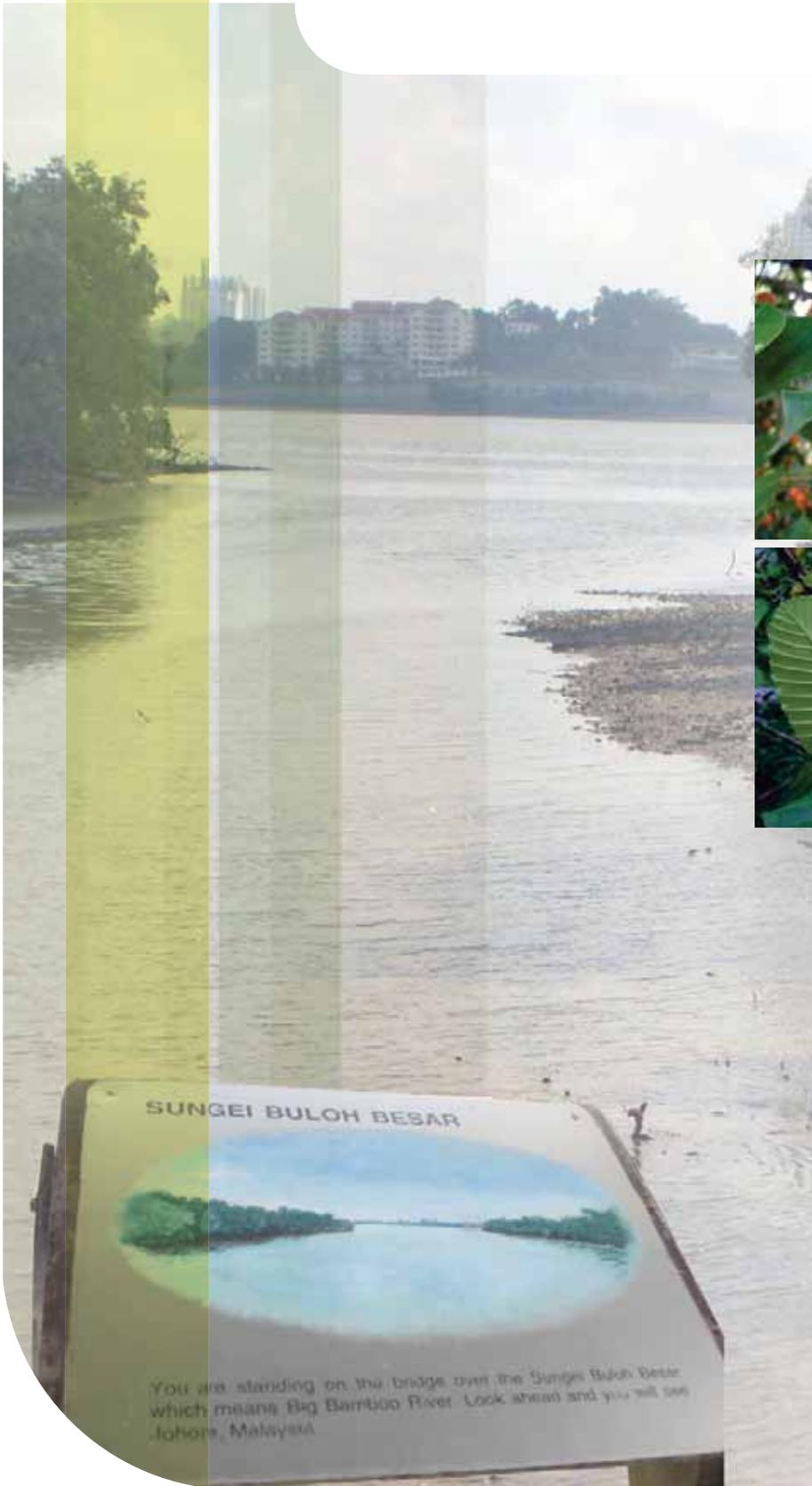
- Guided tours
- Easy-to-follow directional signs
- Volunteer guides

## References

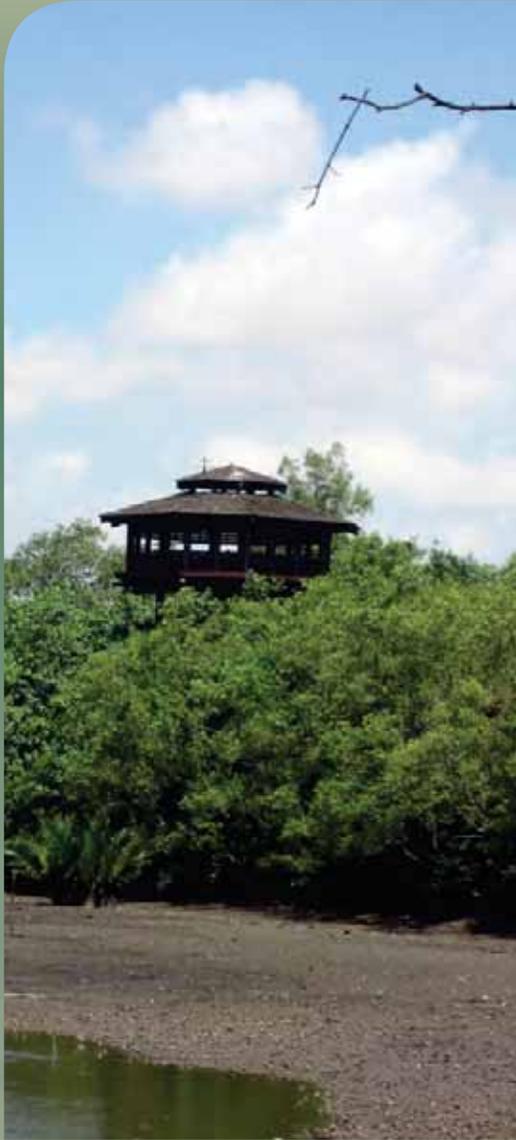
*Actual visit and observations*  
*Brochure: Sungei Buloh Wetland Reserve*  
[www.sbwri.org.sg](http://www.sbwri.org.sg)













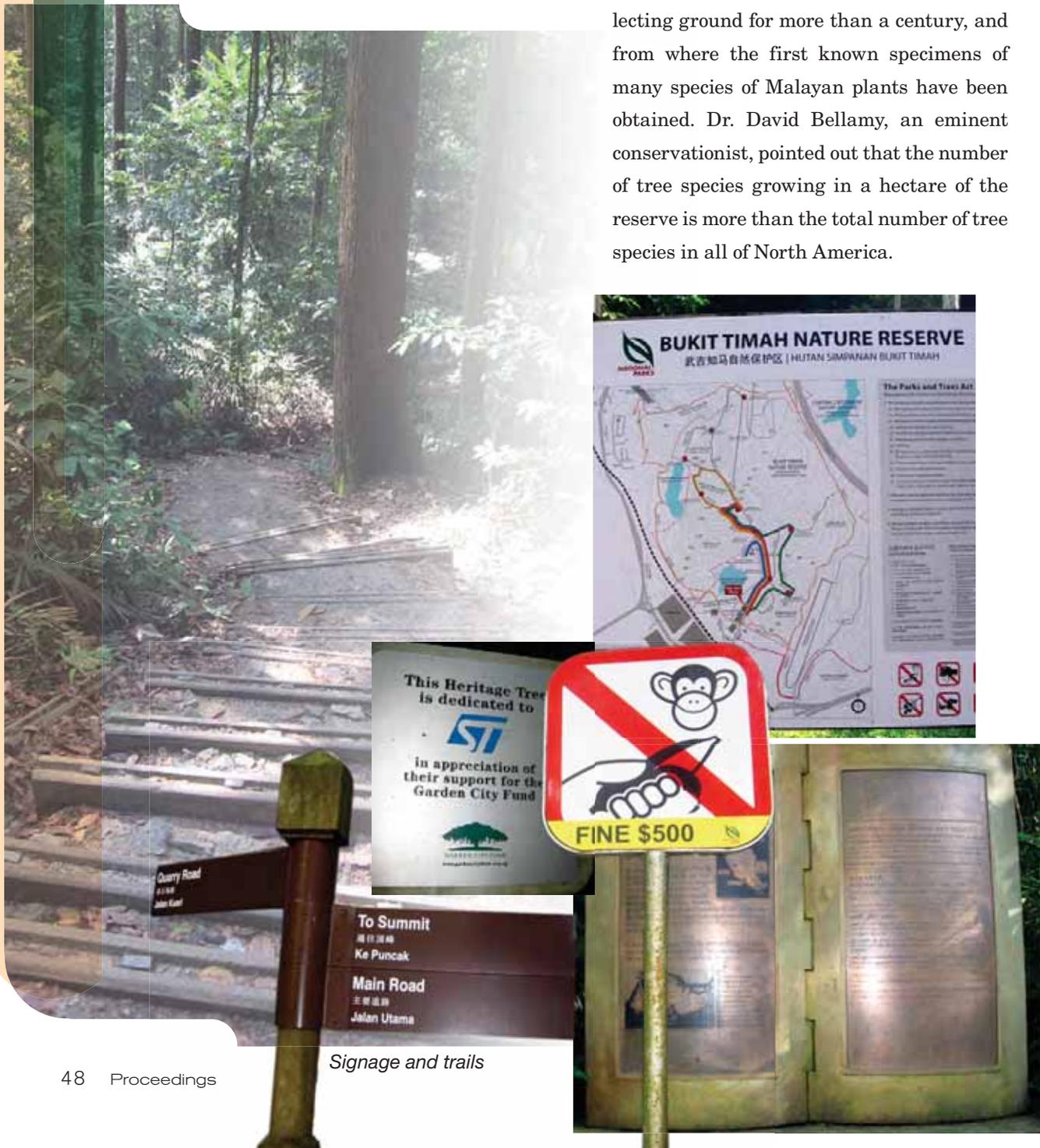
# Bukit Timah Nature Reserve

**Staff Guides:** Hadzlinda Samri, Eric Lim

Just 12-kilometers away from the City, the 164-hectare (400 acres) Reserve includes Singapore's highest hill (163.63 meters) and retains the only substantial area of primary rainforest left in Singapore. Bukit Timah was one of the first forest reserves established in 1883.

By virtue of its location on the equatorial belt, the Nature Reserve has one of the richest and most diverse ecological systems in the world: an astonishing variety of plant, animal and insect life, typical of a humid equatorial climate.

Bukit Timah has been a botanical collecting ground for more than a century, and from where the first known specimens of many species of Malayan plants have been obtained. Dr. David Bellamy, an eminent conservationist, pointed out that the number of tree species growing in a hectare of the reserve is more than the total number of tree species in all of North America.





Hiking up to the summit of Bukit Timah Nature Reserve

Other than being storehouses of water, Bukit Timah Nature Reserve and Central Catchment Nature Reserve are the habitats of more than 840 flowering plants and over 500 species of animals (including butterflies). Covering an area of approximately 3,043 hectares, both the Bukit Timah Nature Reserve and Central Catchment Nature Reserve are managed by the Central Nature Reserve Branch of the National Parks Board.

**Flora:** The forest in Bukit Timah is considered primary because there has been no break in forest cover in most areas. The forest is typical of lowland evergreen forest, characterized by the presence of Serava (*Shorea curtisii*) and *S. macroptera*. These are normally found on ridges above 250 meters in the Main Range of the Malay Peninsula, but occur at 20 meters in coastal hills.

The dominant tree family is the Dipterocar-

paceae, which yields the bulk of commercial tropical hardwood timber. In Bukit Timah, the *Shorea*, *Dipterocarpus*, *Vatica*, and *Hopea* species represent the dipterocarp family.

Understorey plants found growing on the forest floor are the Pendant *Ixora* (*Ixora pendula*), the black lily (*Tacca integrifolia*) and gingers like

*Etilingera littoralis*. Along the forest edges are some rattans and lianes spiraling from the ground into the canopy. Some of the epiphytic plants found there are the Bird's Nest Fern (*Asplenium nidus*), the beautiful Staghorn Fern (*Platycerium coronarium*) and orchids.

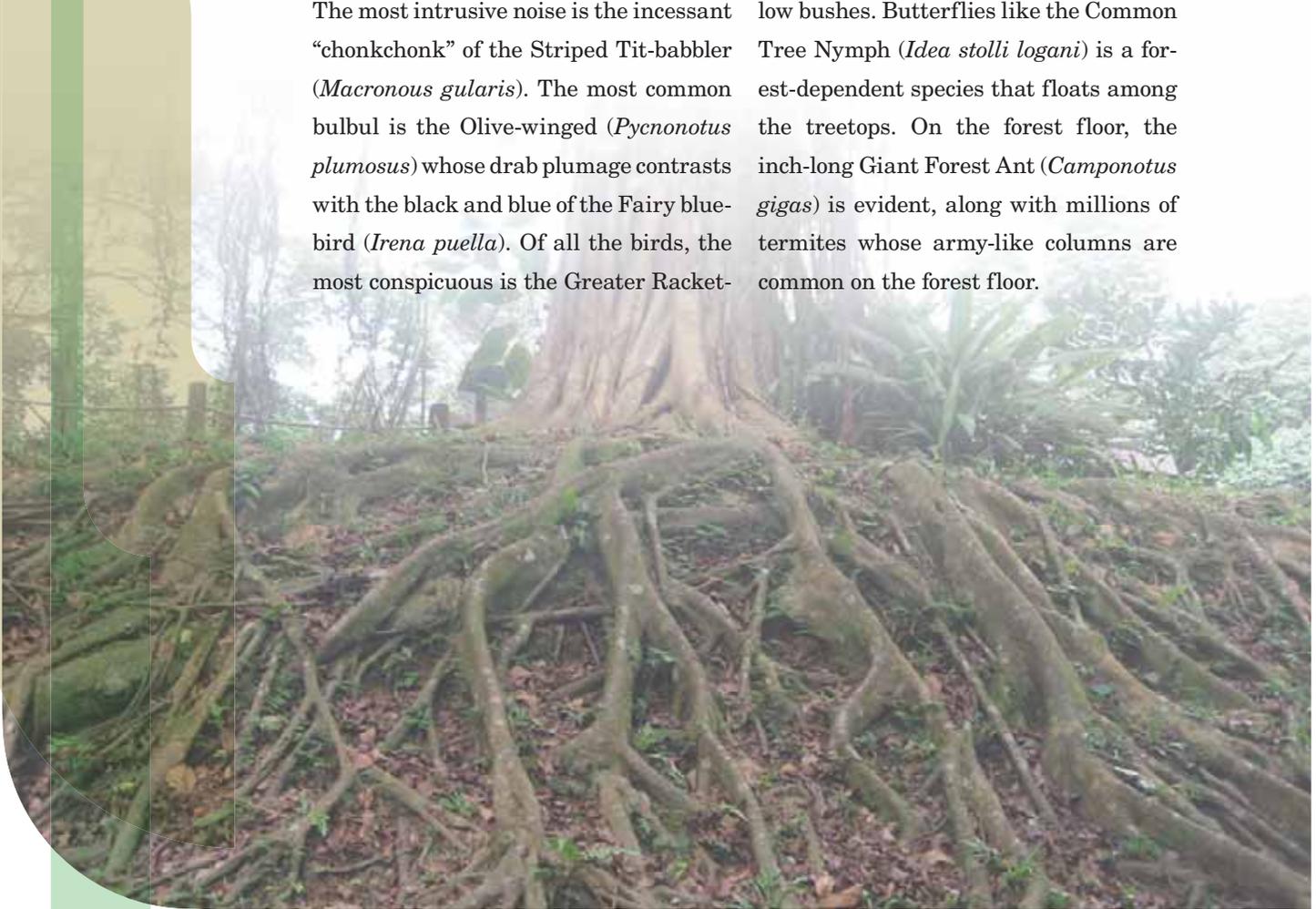
**Fauna:** The clearing of the Singapore forests at some point in history has led to the extinction of many large native animals such as tigers. Fortunately, several small ones still exist in the Reserves. The only primate encountered is the Long-tailed Macaque (*Macaca fascicularis*) that is found in the trees along with the Plantain Squirrel (*Callosciurus notatus*) and the Slender Squirrel (*Sundasciurus tenuis*). Keen observers may spot the Flying Lemur (*Cynocephalus variegatus*) and, with just a bit of luck, the extremely rare Pangolin or Ant-eater (*Manis javanica*).

Geckos can be seen on trunks along with the Black-bearded Flying Lizard (*Draco melanopogon*). A large variety of snake such as the Reticulated Python (*Python reticulates*) and Paradise Tree Snake (*Chrysopa-lea paradisi*) can also be found

Birds are more often heard than seen. The most intrusive noise is the incessant “chonkchonk” of the Striped Tit-babbler (*Macronous gularis*). The most common bulbul is the Olive-winged (*Pycnonotus plumosus*) whose drab plumage contrasts with the black and blue of the Fairy blue-bird (*Irena puella*). Of all the birds, the most conspicuous is the Greater Racket-

tailed Drongo (*Dicrurus paradiseus*), with its unmistakable large black body and long racket-tipped tail.

A myriad of insects provides a backdrop for the variety of vertebrates. During the day, the drone of cicadas seems perpetual. Grasshoppers, stick insects and beetles can be found in the low bushes. Butterflies like the Common Tree Nymph (*Idea stollii logani*) is a forest-dependent species that floats among the treetops. On the forest floor, the inch-long Giant Forest Ant (*Camponotus gigas*) is evident, along with millions of termites whose army-like columns are common on the forest floor.



Briefing of participants

## Walking Trails

Route 1 (1.2km; 30 min. walk going, 25 min, going back)

Route 2 (0.7km; 20 min walk)

Route 3 (1.1km; 30 min)

Route 4 (1.8km; 1 hour, 10 minutes)

Cycling Route (6km; cycling takes from 30min to 1 hour, depending on the skill of the cyclist)

## Visitors Centre

The Visitors Centre opens daily from 8:30am to 6:00pm. Visitors are encouraged to attend the

orientation before exploring the forest. A self-guiding exhibit features essential information about the native flora and fauna of the nature reserve. The Centre provides amenities such as telephones, toilets, souvenir kiosk and ranger-cum-information counter.

## Type of Tourism

Ecotourism

## Best Practices

- Easy-to-follow and well-designed signages.
- Guided tours
- Beautiful scenery for nature walks
- Forest inside the city

## References

*Actual visit and observations*  
*Brochure: Bukit Timah Nature Reserve*  
[www.nparks.gov.sg/cms/](http://www.nparks.gov.sg/cms/)



*Wildlife in the area*

# Singapore Botanical Gardens and Orchid Gardens

**Staff Guides:** Peter Ang, Nick Tang

The first “*Botanical and Experimental Garden*” in Singapore was established in 1822 on Government Hill at Fort Canning by Sir Stamford Raffles, the founder of modern Singapore and a keen naturalist. This garden was closed in 1829 and it was not until 30 years later that the present Singapore Botanic Gardens was founded by an agri-horticultural society. Management of the Park was subsequently handed over to the National Parks Board.



Group photo at the National Orchid Garden and at one of the Heritage Trees in the Singapore Botanic Garden





*Briefing of the guests and participants*





Signages and infrastructures/facilities



In the early years, the Gardens played an important role in fostering agricultural development in Singapore and the region through collecting, growing, experimenting and distributing potentially useful plants.

One of the earliest and most important examples was the introduction from Brazil in 1877 of Para rubber (*Hevea brasiliensis*). This became a major crop that brought great prosperity to the Southeast Asian region. Quality research, both horticultural and botanical, has been conducted at the Botanic Gardens through the years, and many of the publications are authoritative references to plants of this region.

The Gardens spearheaded orchid breeding and hybridization programmes and played a key role in Singapore's



Garden City programme through the continual introduction of plants of horticultural and botanical value. The comprehensive herbarium and reference library at the Gardens are critical resources on horticulture and the regional flora.

In addition, the living plant collection, the Education Outreach, and the various publications serve to promote public education on landscape planting, horticulture, botany and nature appreciation.

The Singapore Botanic and Orchids Gardens has come a long way since 1859. From an experimental station and a pleasure park for family recreation, it has evolved into a fine tropical botanic garden and an important centre for research and is geared toward becoming a leading botanic institution, and a key regional park.

There are four major entrances to the Gardens: Visitor Centre at the junction of Cluny and Nassim Road; Tanglin Garden at the junction of Holland and Napier Road; Cluny Park Gate along Cluny Park Road; and Tyersall avenue access to the National Orchid Garden and Ginger Garden.



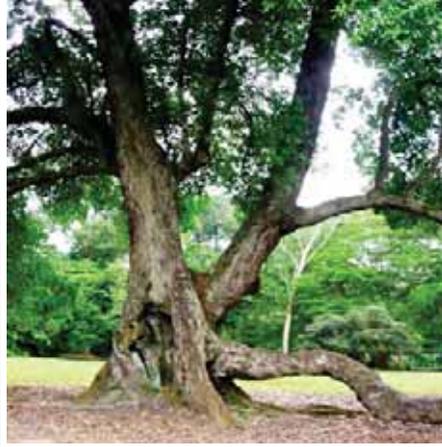
*Some flora found in the National Orchid Garden*



**HERITAGE TREES SCHEME**  
 for natural heritage  
 with the community

launched by  
**Balakrishnan**  
 Director National Development  
 September 2002

Community initiative by:  
**HSBC**



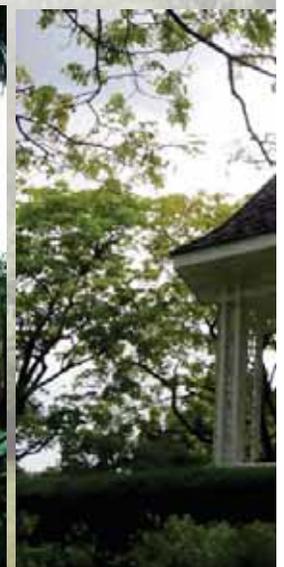
Among the major attractions are: National Orchid Garden, the largest display of orchids in the world, which has a collection of over 1,000 species and 2,000 hybrids; and the three lakes: Symphony Lake, Eco Lake, Swan Lake and the Bandstand. The Evolution Garden at the Singapore Botanic Gardens is a 1.5-hectare area that aims to educate visitors on how plants give us life, and how, long before humans arrived, these plants started to evolve into myriad complex forms.

The Gardens has at least five parking areas; four food and beverage outlets; two restaurants; and two souvenir shops.

The Botany Centre, located close to the Tanglin Gate/Garden, houses the Singapore Botanic Garden Management Office; the Library of Botany and Horticulture, which has a great collection of books, magazines and audio-visual materials on flora, horticulture, landscape architecture, animal life, conservation and the environment, with several computer



*Some of the Heritage Trees*



*Beautiful scenery at the park*

terminals that will facilitate book search; and the Singapore Herbarium, where herbarium specimens of plants found in Singapore are available for use to identify plants, and know the scientific names of common plants.

Both the Herbarium and a Library are open for botanical and horticultural inquiries of a professional nature. A written request is required to use these important scientific resources. Gardening courses, educational tours and workshops for children and adults are conducted for a fee.

### Type of Tourism

Mass tourism; nature-based tourism.

### References

*Actual visit and observation*  
*Brochure: Singapore Botanic Garden*  
*The National Orchid Garden*  
[www.sbg.org.sg](http://www.sbg.org.sg)



Some VIP Orchids



# MacRitchie Trails

**Staff Guides:** Karen Teo, Tay Soon Lian, Derek Liew, Vanessa Chang, Phua Huijia (Grace)

Before Singapore became a British Colony in the early 19th century, the island was almost completely covered with lowland forest. Between 1820 and 1870v, vast tracts of the pristine rainforest were cleared for cultivation. By 1882, less than 10 percent of the original forest cover remained.

Today, only about 2,000 hectares of forest is found within Bukit Timah Nature Reserve and Central Catchment Nature Reserve. Despite representing only a tiny fraction of the island's original vegetation, these Nature Reserves remain an important refuge for a rich assemblage of plants and animals, many of which are forest-dependent.



In 1868, MacRitchie reservoir was completed and its surrounding forest of about 600 hectares was protected as a water catchment reserve.

**HSBC Tree Top Walk:** The HSBC Tree Top Walk features an adventurous experience at more than 25 meters high from the forest floor, through a 250-meter long suspension walkway between the two highest points in Mac Ritchie.

**The MacRitchie Trail / MacRitchie Boardwalks:** There are numerous old rubber trees at MacRitchie Nature Trail. The Nature Trail passes through a rare and beautiful land that has a wide collection of flora and fauna.





Participants take note of some of the plants found along the trails

There are a series of interpretative signboards along the boardwalks. The boardwalks are named after the following native plants: Petai, Chemperai, Jering, and Prunus.

Route 1 (Distance – 3 km); 1 hour walking time; Trail grade : easy:

Prunus trail runs along the water's edge, where

visitors will be dazzled by colorful dragonflies and damselflies. Petai Trail leads visitors through mature secondary forest and closer to big trees like the Jelutong.

Route 2: (4.8 km); 2 hours walking time; trail grade: easy:

Both the Chemperai and Jering Trails hug the reservoir's edge. Chemperai offers a panoramic view of the forest on the opposite banks. Visitors will have the chance to watch magnificent White-bellied fish-eagles circling above the reservoir.

Route 3: (10.3km); walking time: 4-5 hours; trail grade: moderate to difficult



Trekking the MacRitchie Trails

The MacRitchie forest contains the last substantial stands of mature secondary forest that is more than 150 years old. Visitors can see the gigantic trees along MacRitchie Nature trail. The highlight of Route 3 is the HSBC tree Top Walk.

Route 4: (11km); 4 hours walking time; trail grade: moderate.

Visitors are encouraged to go up the Jelutong Tower to have a bird's eye view of the varied terrains of MacRitchie and the skyline beyond the reservoir park.

Route 5: (9.5km); 4-5 hours walking time; trail grade: difficult.

Route 5 links to the Bukit Timah Nature Reserve. Part of the walk is along Rifle Range Road, but

visitors have to look out for vehicles and walk in single file. Almost halfway along this road, visitors can choose to turn left into Kampong Trail or continue walking before turning right onto the path leading to the Reserve.

Route 6: (7km); 3-4 hours walking time; trail grade: moderate to difficult.

Venus Link begins at Venus Drive and leads visitors through an old village ground featuring fruit trees and a trickling stream. Route 6 is the alternative route to the HSBC TreeTop Walk.

**Visitor Amenities:**

Information map boards; restrooms, vending machines, a café and telephones.



*Flora of the MacRitchie Trails*



*Fauna of the MacRitchie Trails*



## Type of Tourism

Ecotourism

## Best Practices

- Establishment of boardwalks are important so visitors do not trample on any of the plants and to prevent soil hardening.
- Well-established directional signs

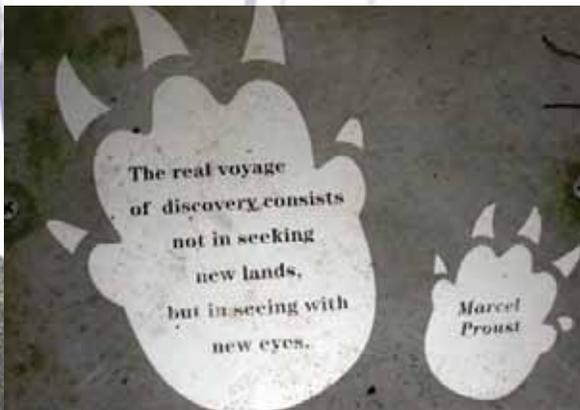
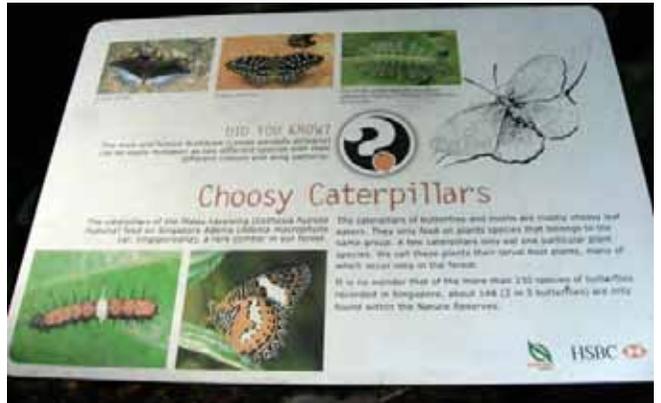
## References

Actual visit and observation

Brochure: *Getting to Know Our Forests Through the MacRitchie*

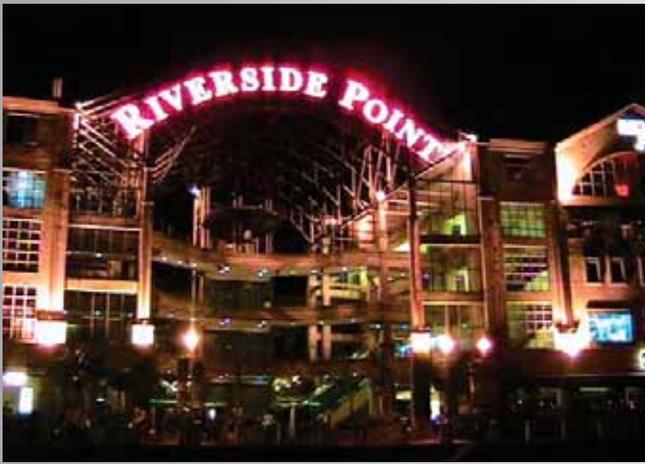
Tree Top Trail @ MacRitchie

[www.nparks.gov.sg](http://www.nparks.gov.sg)



Infrastructure and signages put up in the area





River Cruise dock



View of Merlion and Flyer at night and daytime

## River Cruise

Singapore has several companies running river cruises along Singapore River. These cruises run through the more than 4-kilometer long river that flows under 12 grand old bridges of diverse designs and decorated with quaint old lamps.

While cruising the Singapore River, visitors will marvel at the extravagant contrast between the old building architectures and skyscraper skyline of modern Singapore. From the boats, visitors can admire magnificent colonial government buildings that reflect Singapore's colonial heritage as well as the century-old godowns and shophouses restored to their original grandeur and rejuvenated into some of the most enchanting and chic quayside dining and entertainment destinations. The cruise passes by many grand old bridges of diverse designs and decorated with quaint old lamps of a bygone era.

Those who take this river cruise will learn the pivotal role Singapore River has played in bringing about the phenomenally exceptional economic and social progress that Singapore has made in a short period of time. In fact, legislative and judiciary decisions affecting the nation and her people are still made on one bank of Singapore River, while on the other bank is the nation's financial wealth.

This is a very important and informative cruise as one sails from the past, to the present and into the future.

Singapore River Cruises & Leisure, the oldest and biggest river cruise provider, offers two river cruise tours with onboard commentaries that bring visitors on a unique journey down the Singapore River to discover the vibrant sights and sounds along the river banks.

### Type of Tourism

Mass tourism

### References

*Actual cruise and observation*  
*Brochure: Singapore River Cruises and Leisure Pte Ltd.*  
[www.rivercruise.com.sg/rivercruise.htm](http://www.rivercruise.com.sg/rivercruise.htm)



## Conclusions and Recommendations

The Study Tour provided the participants first-hand experience, and knowledge about the implementation and management of selected ecotourism sites in Malaysia and Singapore. It also provided a venue for exchange of ideas and information among practitioners and those working in the sites.

Among the issues discussed were the approaches and techniques in establishing and/or enhancing ecotourism. The Study Tour also promoted the possibility of cooperation and networking among participants in managing their ecotourism areas and activities, as well as the possibility of conducting an exchange programme of staff among countries.

## Acknowledgement

The ASEAN Centre for Biodiversity and the participants appreciated very much the assistance given by Johor National Parks Corporation and the National Parks Board, Singapore. The group thanked all the officials and staff for their assistance and expertise during the guided tour.

# **Annex**

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# **Annex 1**

## **Directory of Guests and Participants**

# Directory of the Guests and Participants

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22-22 March 2008

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