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Wildlife Sanctuary in Singapore: A Sneak Preview

*Among the first descriptions of
Sungei Buloh Nature Park*



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To the former residents of Neo Tiew Road and Lim Chu Kang Road, the

Sungei Buloh Nature Park is said to be situated at the "*tail end of nineteen and a half miles*". In the past, villagers used to shoot wild Lesser Tree Ducks (*Dendrocygna javanica*) there. It was more for sport for them as the birds were considered a delicacy.

Today, all the residents have been resettled. Many do not know about the protected status of the Park. Tell tale signs of this protected status include the green fencing along the landward side of the reserve and the NO POACHING signs set up at various locations.

The Sungei Buloh Nature Park was designated a bird reserve and nature park by the Ministry of National Development in 1989. It is an important stop-over or re-fuelling point for many species of migratory birds which make their yearly round trip pilgrimage down south from the Siberian Arctic.

These birds flee the cold northern winter and fly along what is called 'The East Asian Flyway', a route stretching from the Siberian Arctic, down Japan, Taiwan, coastal Asia, Hong Kong, Thailand, the Malay peninsula, Singapore, Borneo, Indonesia, the Philippines and to Australia. They may stop over at Sungei Buloh for a few days or longer before visiting other sites along the way.



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A migratory flock at rest

They arrive in flocks of hundreds and sometimes thousands. Their taking off and landing are often preceded by synchronised aerial manoeuvres. These are spectacular sights.

Apart from the birds from the Siberian Arctic, Egrets and Herons from China, Japan and South Korea also roost and feed at the reserve. These bigger birds are often seen silently and patiently stalking their prey which consist of fish, frogs and crustaceans. Some herons are resident to Singapore and can be seen all year round.

The Park is also home to resident kingfishers, nightjars, doves, pigeons, bitterns, quails, woodpeckers, sunbirds, weavers, tailorbirds, flycatchers, swifts and munias.

Mangrove trees and herbs, a fast disappearing flora in Singapore, characterise the plant life of the reserve. Mangroves have overcome atypical conditions of growth and evolved adaptive features to cope with harsh conditions. Their root systems, leaves and seedlings tell the story of how life-forms adapt to differing environments in the struggle to survive.

There are also fresh water ponds, a coconut grove and a small fruit orchard in the



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Park.

The Sungei Buloh Nature Park retains a slice of fast disappearing rural environment representative of part of our natural heritage.

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Wildlife Sanctuary in Singapore: A Sneak Preview (Part 2)

The Visitor Centre

The Visitor Centre hosts a series of facilities including a lobby area, an exhibition hall, a theatrette, an education workroom, a laboratory and administrative offices. The exhibition hall houses displays and exhibits, and the theatrette tells the story of the Park through a 10-minute audio-visual show.



Savour a leisurely walk here

Part of the Visitor Centre is surrounded by a moat with fresh water pond plants. Built mainly of wood, the Visitor Centre building exudes a quiet rural charm.

A Magical Sea of Trees

A mangrove catwalk traverses the coastal mangroves adjoining the Visitor Centre and a stroll here is a refreshing and tranquil experience.

At high tide, it turns into a magical setting of 'a sea of trees' where visitors can reach out to touch a trunk or peer into the eyes of a ghost crab crouched on a branch. Occasionally, the loud cackling of a kingfisher breaks the soft gentle lapping of the tide. The shaded placid waters are broken by the rays of sunlight streaming through the leaves of trees. At low tide, the mudflats teem with wildlife.

Mudskippers look out suspiciously from shallow pools of water or skim quickly to other pools. Dog-faced watersnakes pursue little fish and crustaceans. Crabs hurry here and there and creeper shells bask in carpets of green algae. With a hand lens, you can see a profusion of insect and mud life.



The strange root formations of mangroves are also a curiosity. Some twist, turn and bend like human knees. Others protrude out of the soft black mud like thick needles. Yet others branch from the trunk and seem to prop the tree up—like stilts. The strangling stems of figs wrap themselves around straight trunks and weave formations reminiscent of artwork.



*Roots come in all shapes and sizes,
but none more interesting than
those of mangrove*

A walk along the catwalk is a return to tranquility, and to the sounds of life. It is a return to nature.

A Walk in the Park

After the mangrove experience, the main reserve area opens the world of wetland birds to visitors. Hides are located in several areas. These are wooden structures for bird observation. A narrow viewing slit or window opens out to the ponds. The windows allow only minimal light in so that any movement made by bird, watchers will not disturb the birds.



From the hides, herons can be observed roosting on treetops, egrets wading in the shallows of water, and smaller waders playing along the edges of ponds or roosting in large flocks on islands.

Along the various trails, there are butterflies, dragonflies and a host of other insects. Cobras and pythons may be encountered but they are more likely to be frightened off by us!

A resident Purple Heron

The Park is home to a predator of birds—monitor lizards. They are more often heard than seen, a loud rustle of grass or a plunge into the ponds maybe their only traces. Occasionally, you may catch one sunbathing along a path. When confronted, it will clumsily but surely scurry away into the safety of the shrubs.

Facilities and Services

There are guided group tours around the Park for visitors. An Education Service also provides visiting school groups with a guided tour as well as participation in an education activity.

Research

Because of the large diversity of life to be studied, research in the Park is ongoing. Plant and animal identification, recording of the number of migratory birds and their species, their arrival and departure times, finding out where they will fly to when they leave Sungei Buloh and if they will return next year—such studies help us to understand better the mystery of migration. They also form the basis of management of the ecology within the Park.

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Research at Sungei Buloh Nature Park

Demystifying Migration

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The East Asian Flyway is one of the least studied of the migratory systems in the world. Research work on migration requires manpower, time and expenses and must be carried out consistently and over decades. Increasing interest in conservation has resulted in increased ringing and banding activities within the Asian region and it is hoped that with this, the East Asian Flyway can be better understood.



*Measurements of the bird
are taken before a ring is
clipped on*

Last season, birds were rung in the Park. Among them were Whimbrels, Common Redshanks, Common Greenshanks, Marsh Sandpipers and Pacific Golden Plovers. Recaptured birds included Common Redshanks and Pacific Golden Plovers (these are birds which have been rung previously).

Ringing is a delicate affair requiring a soft touch and much patience. During ringing, mist nests are set up at suitable locations at dusk. At night and according to tide levels, birds fly in to roost in the ponds. As they do so, they are trapped in the nets and gently removed by ringers.

Measurements of the birds are taken and a ring bearing a serial number and the ringer's name and address is clipped around its leg. The bird is then colour banded (or dyed) and released. If the bird is recovered elsewhere by other ringers, the previous ringer will be informed. Information is then gathered and collated.

Ringing establishes migratory routes and arrival and departure patterns. It also contributes to knowledge in plumage and weight changes and lifespan.

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A Study of Insectivorous Bats at Sungei Buloh

[Update](#) on the study

A study of the roosting behaviour of insectivorous bats and their echolocation patterns is being conducted by the NUS Zoological Department. Heading the research is Dr David Lane who is assisted by Masters student, MS Shirley Pottic. The project, financed by the National Parks Board, is aimed at finding out if insectivorous bats will use specially constructed boxes to sleep and rest in.

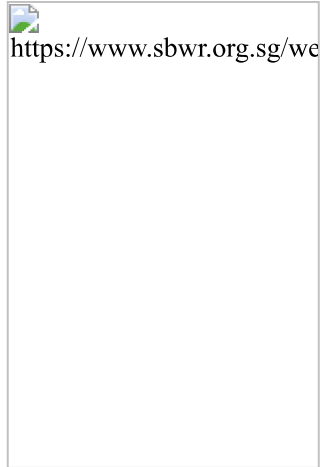
The project will also monitor their calls and study how they orientate themselves through the use of sounds.

The study is conducted in six areas, the Sungei Buloh Nature Park, the Central Catchment Area (Seletar and

Echolocation
*is the orientation of direction
through the use of sounds.
Insectivorous bats of the
suborder Microchiroptera*

Macritchie Reservoirs), Bukit Timah Hill, Sime Road, Kent Ridge and NTU at Jurong.

produce sounds in the high frequency range (above 20kHz and above human hearing range) for navigation and in obtaining food.



Bat boxes being checked for indication of use, the most obvious being faecal matter

In Sungei Buloh, the boxes are put up on coconut trees about ten feet above ground. On the average, three boxes of two different designs are used on each tree. Boxes are placed in different directions.

Studies in temperate countries indicate that bats prefer boxes placed facing the sun because heat that is retained provides warmth when temperatures drop at night.

Findings from the research will help in the conservation of bats in tropical countries. In many Asian countries, bats are a gourmet's delight and are traditionally prized for medicinal properties. However, insectivorous bats have another role to play in the chain of life—feeding on and controlling insect populations.

[Update](#) on the study