

# WETlands

Sungei Buloh Nature Park, Vol. 6 No. 1, April 1999. MITA(P) No. 142/01/99



## CONTENTS

### 3 **Did You Know?**

*Park's initiatives to enhance your visit.*

### 4 **Park Programmes**

*Interesting and educational programmes for the family.*

*“Whenever possible, nature areas should be put to complementary use so that Singaporeans can enjoy our natural heritage and learn to appreciate nature.”*

Prime Minister  
Goh Chok Tong, 6 Dec 1993

### 6 **Feature Article**

*Intriguing Insects.*

### 8 **Centre Spread**

*Creepy Crawlies of the Mangrove.*

### 10 **Other Nature Areas**

*Bringing you “Across the sea”.*

### 12 **What Happened**

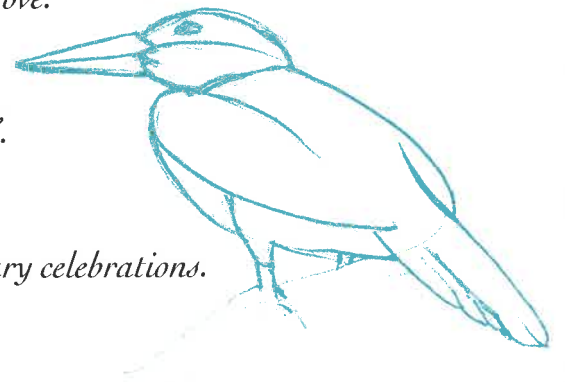
*Highlights of the 5<sup>th</sup> anniversary celebrations.*

### 14 **What's Coming Up**

*Fun-filled activities coming your way.*

### 15 **Sightings**

*Find out who came for a visit in the Park.*



#### Editorial Committee

##### Advisors

Mr Wong Tuan Wah  
Ms Ong Chui Leng

##### Editor

Ms Linda Goh

##### Contributors

Mr James Gan  
Mr Lim Haw Chaun  
Ms Halilah Ahmad  
Ms Evelyn Kuah  
Ms Linda Goh  
Mr N. Sivasothi  
Mr Kelvin Lim  
Ms Elfie Eleza Kamarudin  
Mr Bryan Wee  
Ms Chan Su Hooi  
Ms Adeline Chia

##### Design Studio

Yan Design Consultants

##### Printer

Octogram Press Pte Ltd

##### Publisher

Sungei Buloh Nature Park

##### Cover photo by Mr Tan Swee Nam


Picture of Dillenia Shield Bug  
(*Pyganum rubens*)

## EDITORIAL

No doubt the invertebrates dominate the Park because they are the most numerous and diverse group found here. However, the vertebra of Sungei Buloh Nature Park is YOU.

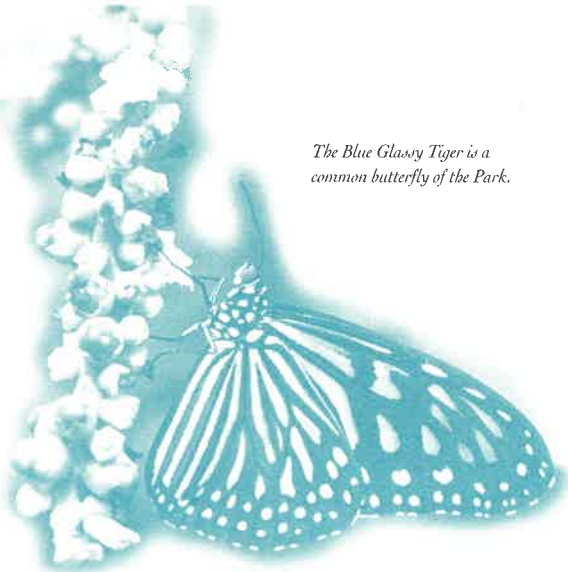
As such, we are constantly seeking to enhance your experiences at the Park. We have initiated many new projects ranging from converting the souvenir shop area into a cosy little information centre to increasing the butterfly population around the Visitor Centre for your enjoyment.

More interesting and educational activities such as Traditional Prawn Harvesting, Birdsketching Workshop and monthly Nature Talks have been lined up. Even the newsletter has increased another one fold.

All these in the hope of promoting understanding of nature and thus protecting our natural heritage that has been entrusted to us. 

*linda goh*





The Blue Glassy Tiger is a common butterfly of the Park.

Find out more about the Park's initiatives as **JAMES GAN** tells about the steps taken to enhance your experience at the Sungei Buloh Nature Park.

# Butterflies and their Food Plants

**H**ave you noticed a profusion of flowering shrubs in the Visitor Centre lately, especially when you take a stroll from the carpark to the reception counter?

In recent months, we had started on a planting programme designed to highlight and increase the butterfly population in the Park.

Through our surveys involving staff and volunteers, we have noted that a number of flowering shrubs are favoured as nectar drink stations by a large number of butterfly species. These are plants like the Lantana (*Lantana camara*), Singapore Rhododendron (*Melastoma malabathricum*), Common Asystasia (*Asystasia intrusa*) and Common Snakeweed (*Stachytarpheta indica*). We

have planted more of them within the Park to attract the butterflies.

While the flowering shrubs provide adult butterflies with adequate nectar food for their brief life (butterflies in their adult form usually live between two to four weeks), their corresponding caterpillars may not fancy the leaves and shoots of those flowering shrubs. Thus, we have increased the numbers of caterpillar host plants. Examples of such plants are the Cat's Whiskers (*Cleome ciliata*), Chempaka (*Michelia*

*chempaka*) and Curry Leaf Plant (*Murraya koenigii*).

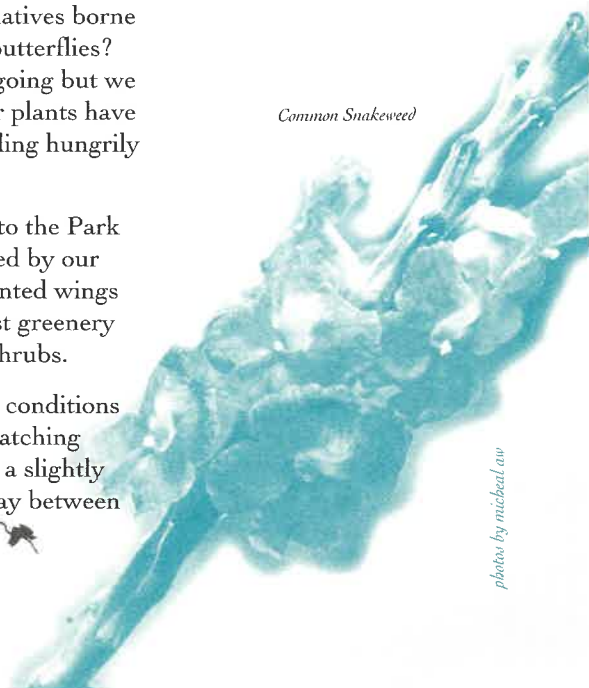
Have these initiatives borne fruit or rather butterflies? Studies are on going but we noticed that our plants have caterpillars feeding hungrily on them.

So come down to the Park and be enthralled by our insects with painted wings fluttering amidst greenery and flowering shrubs.

Note: The ideal conditions and times for watching butterflies is on a slightly breezy sunny day between 10am and 4pm. 🦋



Singapore Rhododendron



Common Snakeweed

# Traditional Prawn Harvesting

by lim haw chuan



**A**bout 20 people gathered at the sluice gate of the Prawn Pond one fine December morning. They were here to participate in our inaugural traditional prawn harvesting demonstration for the public. The group included a few family groups and numerous children, all of them waiting patiently to see the prawns that were in the ponds.

prevent large predatory fishes from coming in and consuming the prawns, a metal mesh is installed along the sluice channel. After the stocking of the pond, exchange of water between the pond and outside (sea) is carried on a weekly basis by opening part of the sluice gate when the water level outside is lower. Water comes into the pond again when the tide rises slowly, filling the pond. This exchange of water drains away pond water which carries waste and lets in nutrient-rich water. The entire growth of the prawns rely on the natural productivity of the pond. The cyclic exchange of water will continue till the day when prawn harvesting is carried out. That occurs approximately three months from stocking the pond.

The harvesting is actually carried out in 3 parts. A minor harvest is carried out at 2 am in the morning to rid the pond of some of the vegetative debris which tend to flow out first. This would prevent the leaves, branches and so on from clogging up the net later. The second stage is to lower the water level of the pond to around 2.5m. This reduces the pressure on the inner side of the sluice boards during low

tide. Finally, the sluice gate is opened again at 7 am and the pond is completely emptied around 10 am.

From the 9 Dec harvest, we caught 9.5 kg worth of prawns, of which they were mainly Greasyback Shrimps (*Metapenaeus ensis*) and Banana Prawns (*Penaeus merguensis*). Our biggest catch of that day was a Banana prawn which weighed 55 g and measured 225 mm in total body length! Apart from prawns, we also managed to catch a number of fish. The visitors had an enjoyable and informative time listening to the stories of the different types of fish told by the staff of the Park.

The event was indeed a successful one, gauging from the delightful looks on the faces of the children looking at the jumping prawns and the appreciative crowd we had.

The demonstration serves to highlight the usefulness of the mangrove areas which is a natural spawning ground for prawns and fish. It is also an educational activity for our visitors to learn about traditional prawn farming. 🦾



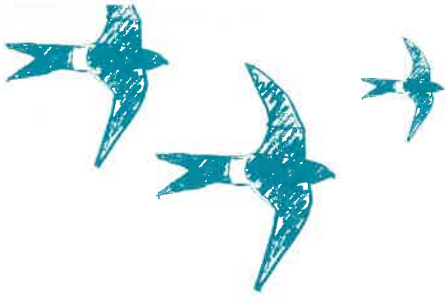
*The Anticipation.*

What then is traditional prawn farming?

To begin, naturally occurring juvenile prawns are introduced into the designated pond by flooding it during high tide and closing the sluice gate to keep them in. This introductory method works since adult prawns are known to spawn in mangrove waters. To

*The Thrill.*





**HALILAH AHMAD, Education Officer of the Park, conducts the Birdsketching workshop for visitors.**

# Birdsketching Workshop



**B**irdwatching is gaining popularity among many Singaporeans. Keeping a journal of what you see helps enhance the experience. But no one is born an artist, able to sketch very quickly what one sees on the field. To complement the Park's most popular activity, we have started a new workshop, "BirdSketch".

During this workshop, you would learn how to draw birds using simple shapes that are familiar to us: circles, squares, rectangles, triangles. View the bird you see in geometric shapes. Piece the shapes together to form the outline of the bird. Sketching birds in the correct proportion, with the right posture, bill, tail length, body size is essential

for correct bird identification. Through the sketching process, one would also see the intricate features of the birds and appreciate the beauty of nature.

This workshop is free and materials are provided but admission charges apply. Join us to learn a new skill.



# Nature Talks at Sungei Buloh

*by evelyn kuah*

**T**he sense of unknown and anticipation filled the air. The weather was wet and gloomy, the atmosphere, still and quiet. It was beginning to dampen our spirits.

Just then, we heard voices. Soon, more voices and more people arrived. Despite the heavy rain, many visitors came for the first session of a series of talk cum slide show presentations for 1999.

The rain finally stopped and the afternoon sun shone

brightly. The theatre was packed within seconds.

Sivasothi, our experienced guest speaker had no problem getting the audiences' attention with his informative and interesting repertoire.

"The Story of Sungei Buloh Nature Park You Never Knew" highlighted a variety of animals and plants from the mangrove, mudskippers and crabs to the different flora found in Sungei Buloh. Together with exciting personal experiences from

the speaker himself, there was no dull moment and it was an afternoon well spent. The duration of the talk was longer than expected but no one seemed to mind.

The talk ended on a high note with many staying back to ask questions. We are very encouraged by the overwhelming response and encouraging feedback. All of us are definitely looking forward to many more months of enriching and entertaining talks.

*Mangrove Crab*





# "Insectopia"

by linda.gob

## -Land before time-

Cotton Stainers

Pond Skater

---

*"Did you know?  
The Weaver Ants  
make use of the silk  
produced by its larvae  
to seal leaves together  
to form their cosy  
little home. Beware of  
raining Weaver Ants  
though, as they are  
capable of giving you  
nasty bites when  
provoked."*

---

**T**hey are the creatures that roam planet Earth long before the dinosaurs. Today, they make up more than half of all the life forms on Earth. In "A Bug's Life", Disney featured them as cutesy little creatures which evoke endearing responses from the audiences. In reality, they are predominantly shunned like a plague or pursued to death. Much as people detest or are indifferent to them, *Insects* have crept and spread so successfully into our lives that we will be impeded without them. It is time these long suffering creatures are brought out of their "armour-plates" shells and be given the due respect they deserved. Brave on with me as I present you intriguing facts from the amazing world of insects that can be found in Sungei Buloh Nature Park.

### *Population Explosion*

Do you know that there is "a ratio of 200 million individual insects to a single human being"? So it is not entirely untrue when Z, the lead character in "Antz", complains about being "a middle child in a family of five million". Considering the fact that some species of termites are capable of laying up to 30 000 eggs in a day, this should come as no surprise at all.

### *The Mating Game*

To ensure continued survival, some of these insects have evolved to beat the odds at their best. One good example is the Cicada. As the male generates shrill calls to attract its likely mate, it is also unwittingly announcing its presence to potential predators. The fact that it is a ventriloquist, predators are kept from knowing its precise whereabouts. The female on the other hand would have no problem locating him at all. This form of advertising is no doubt a much safer mode of courtship. Listen to these sopranos serenading as you enter the Mangrove Boardwalk.

### *The Hunting Game*

However Mother Nature has its ways to keep the numbers in check. Not only are insects favourite diets of some birds and lizards, they are also hunted by some of their own kind.

Preying upon the water surface is the Pond Skater that detects its victim by the vibrations it caused. The hunter swiftly seizes its prey before sinking its mouth parts into the body and sucking its juices. Watch out for this piece of action at the Aquatic Plant Pond.

The deadliest danger is however airborne. Lurking above you around the freshwater ponds are the "little dragons" of this age. The Dragonfly is a proficient hunter that possesses the largest eyes in the insect kingdom. It has no problem seeing all around it and at all times. This extraordinary asset coupled with its ability to fly 55km per hour, makes the Dragonfly a formidable threat to its victims like the mosquitoes.



Dragonfly





*Mating Damselfly*

*Mating Atlas Moth*



---

*“Did you know?  
The Cotton Stainers  
are persecuted by  
cotton farmers as  
they stain the cotton  
with a fungus they  
carry. A much  
detested pest that is  
however much sought  
after at the Park.  
The brightly coloured  
Cotton Stainer is a  
real beauty. You can  
easily find them amid  
the flowers buds of the  
Sea Hibiscus plant.”*

---

Not to be mistaken as a damsel in distress is the dainty Damselfly, which also possesses the same ferocious appetite and abilities of the Dragonfly. To tell them apart, you need only to observe them at rest. While the Damselfly rests its wings parallel to its body, the Dragonfly holds them perpendicular to itself.

Joining their rank of viciousness is the Praying Mantis. Meditating it is not; I can assure you as the creature lies motionlessly for hours among twigs and leaves. The ill-fated fly is in for a deadly shock when it gets too close for comfort. The worst act is however awarded to the female, which is capable of biting off the male's head after the act of procreation.


### *The Art of Defense*

Thus it is evident that insects must develop appropriate defense mechanisms to protect themselves from untimely death.

Each insect has its own unique method in doing so. Camouflage is the name of one of the games they play to mislead their predators. The Leaf Locust is a very good example. One could easily mistake it as a leaf as its name suggests. The Atlas Moth on the other hand employs its own tactic to safeguard itself. Its wing tips are shaped like the head of a snake to scare potential predators away. The Stink Bug put itself off the menu

of birds by discharging a foul-smelling liquid when they know their lives are in jeopardy. The list goes on for this highly developed group of animals.

### *Charming Creatures*

There is so much to learn about this group of intriguing creatures that it is easy to keep one spellbound and awed. One could easily spend hours watching them go about with their daily doings. All it takes is a little patience and eyes for the small details. The next time you drop by the Park do remember to look out for these creepy crawlies. 

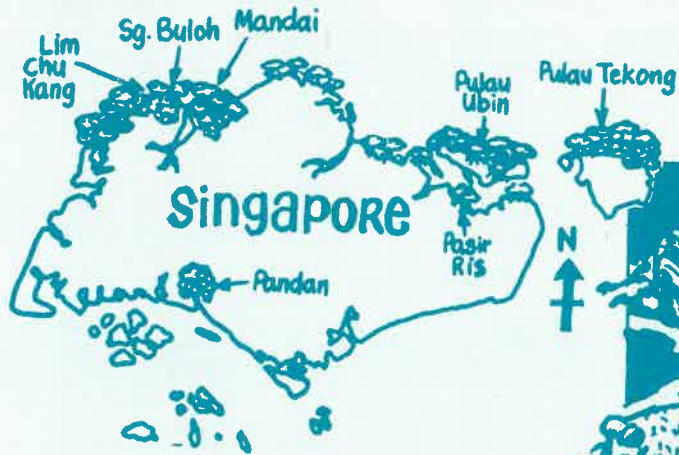
*Leaf Locust*



*Praying Mantis*



# TREE-CLIMBING CRAB



MOST OF OUR MANGROVE FOREST IS FOUND ALONG THE NORTH COAST.

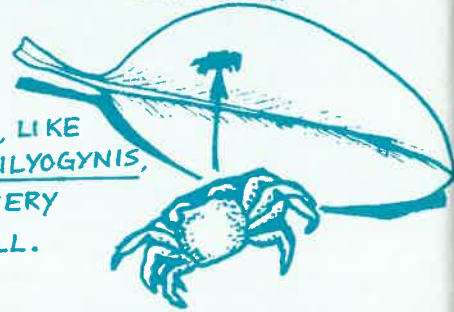


MANY INTERESTING PLANTS AND ANIMALS FOUND HERE ARE UNIQUE TO THIS HABITAT.



CRABS ARE NUMEROUS HERE.

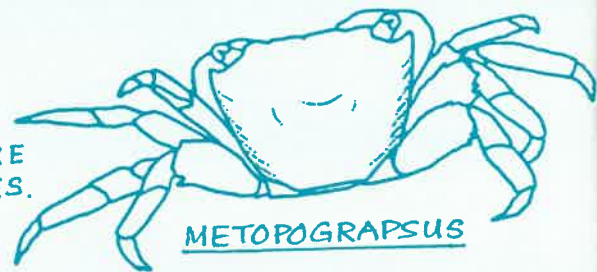
SOME, LIKE THIS ILYOGYNIS, ARE VERY SMALL.



MOST CRABS DWELL ON THE GROUND, OR IN BURROWS. THERE IS A SPECIAL GROUP OF CRABS THAT ARE FOUND ON TREES.



SELATIUM BROCKII LIVES ON TREES (I.E. PHYTOTELMIC) WHILE METOPOGRAPSUS AND EPISESARMA CLIMB UNDER CERTAIN CONDITIONS.



METOPOGRAPSUS



SELATIUM

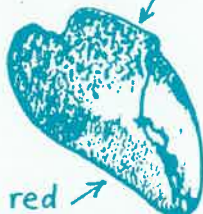
deep purple



white

1 EPISESARMA VERSICOLOR

brown



red

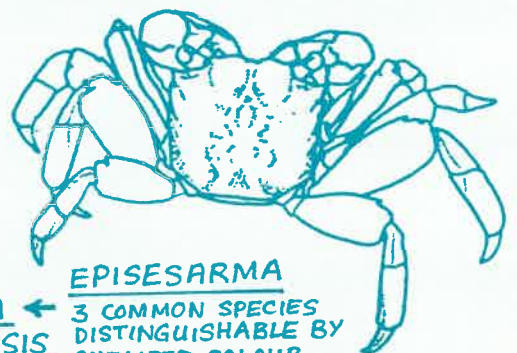
2 EPISESARMA CHENGTONGENSIS

red



white

3 EPISESARMA SINGAPORENSIS

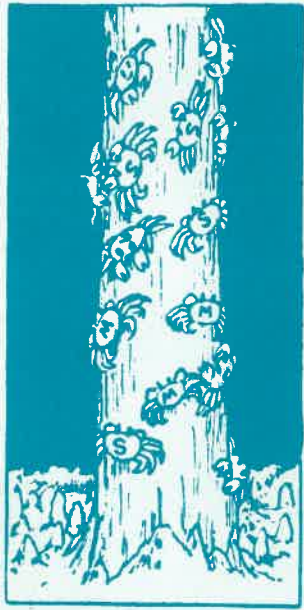


EPISESARMA

3 COMMON SPECIES DISTINGUISHABLE BY CHELIPED COLOUR



# CRABS IN SINGAPORE MANGROVES



SELATIAM MAY BE DIFFICULT TO SEE IN THE DAY BUT AT NIGHT, HUNDREDS MAY BE SEEN ON TREE TRUNKS, GRAZING ON ALGAE UP TO HEIGHTS OF 4 METRES.

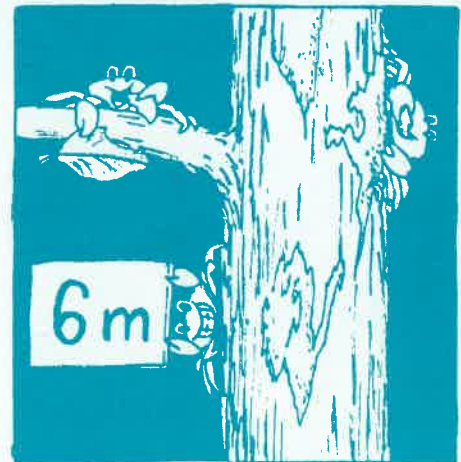
METOPOGRAPSUS IS SEEN IN SMALLER NUMBERS, USUALLY CLOSER TO THE GROUND.



IN THE DAY, EPISESARMAS CAN BE SEEN CLIMBING DURING HIGH TIDE, BUT THEY REMAIN JUST ABOVE THE WATER LEVEL.

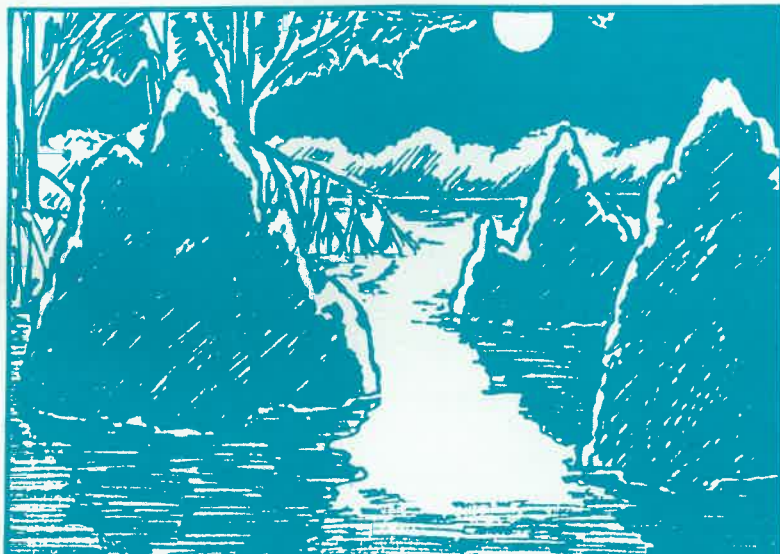


AT NIGHT, HOWEVER, THEY CLIMB TO HEIGHTS OF SIX METRES OR MORE AND CAN BE SEEN GRAZING ON ALGAE, AS WELL AS EATING LEAVES.



IF YOU START WALKING AROUND THE MANGROVE AT DUSK, YOU WILL GRADUALLY SEE MORE AND MORE CRABS ON TREE TRUNKS AT INCREASINGLY GREATER HEIGHTS.

BUT DON'T JUST WATCH THE CRABS - DURING FULL MOON, THE WATER OF THE INCOMING TIDE GLISTENS AROUND THE MUD-LOBSTER MOUNDS - CERTAINLY A PRETTY SIGHT!



BUT TRY NOT TO GET STRANDED.

# Across the Seas...

## PULAU UBIN RECREATION AREA

### Visitor Centre

Opening Hours:  
7.00am to 6.00pm.  
Mon - Sun, including  
Public Holidays.

Ferry Terminal at Ubin.

### Bumboat Charges

\$1.50 per trip (per person).  
\$1.00 extra per bicycle.

### Getting There

To reach Changi Bus Terminal, take SBS No. 2 from Bedok or Tanah Merah MRT Station; or SBS No. 29 from Tampines Bus Interchange. The Changi Point Jetty is

adjacent to the Bus Terminal. From then on, it is only a ten-minute bumboat ride to get to PULAU UBIN.

Further information may be obtained from:

Information Kiosk  
Tel: 542-4108

NParks Office  
Tel: 542-4842  
Fax: 542-4843

Pulau Ubin Police Post.  
Tel: 542-8664

Website:  
[www.nparks.gov.sg/nature/pubin.html](http://www.nparks.gov.sg/nature/pubin.html)

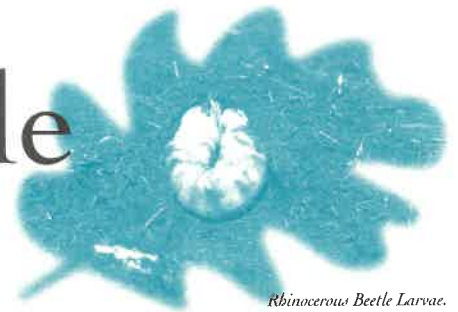


Map of Ubin.

# Rhinoceros Beetle

by elfie eleza kamarudin

## (*Oryctes rhinoceros*)



Rhinoceros Beetle Larvae.

As the wind blows, their elegant fronds dance with the flow of the breeze. Coconut trees possess the mystical ability to conjure up a tropical paradise atmosphere wherever they may be found.

However, like all other kinds of vegetation, coconut trees are susceptible to insect attacks. The insect that is most likely to attack it is none other than the Rhinoceros Beetle. The Malays refer to them as "kumbang tandok", meaning Horn Beetle. Only the male rhinoceros beetle has the

distinctive horns that give this intriguing creature its name.

This particular species measures up to 43mm, making it one of the biggest insects in South East Asia. However, it cannot be compared with its counterparts, the Goliath and Hercules Beetles from tropical America and Africa respectively, which can measure up to an amazing 155mm!

It lays its eggs in rubbish heaps, rotting trees trunks, sawdust, and other vegetative matter. These hatch into small larvae in 10


to 18 days. The young or the larvae feed on decaying wood and vegetative matter and can grow to lengths of about 60mm or more. During this stage, they do not damage the plants. The larval stage lasts for 2.5 to 7 months after which pupation takes place within the breeding site. The pupae will require another 1.5 to 2 months before it transforms into an adult and becomes a threat to the palms.

They enter the heart of the palms and feed on the tender tissues within. Subsequently, the new leaves will be damaged and

the resulting fan-shaped frond is characteristic of a Rhinoceros Beetle attack.

To control the population of this insect, chemicals such as carbofuran can be used. Traditionally, a piece of barbed wire was used to spear and collect the beetles attacking the young leaves of palms.

So the next time you see your palm fronds bearing the Rhinoceros Beetle's characteristic signature, stop to take a close look around.

There may be a new bug in town. 



# The Atlas Moth

*(Attacus atlas)*

**B**utterflies and moths belong to the order Lepidoptera, taken from the Greek words lepis (scale), and pteron (wing). Hence, all insects belonging to this order have their wings, legs and body covered with minute scales.

But how does one tell the difference between a butterfly and a moth?

I have heard some people telling me that butterflies are brightly colored whereas moths tend to be dull and plain in appearance. One only has to look at the Atlas Moth to know that this is not so.

In truth, butterflies and moths have their own distinguishing characteristics, although as in English grammar, there are exceptions to these rules.

Most butterflies are day fliers whereas moths are generally nocturnal in habit.

In addition, butterflies generally rest with their wings closed in an upright position whereas moths rest with their wings held in a horizontal or roof-like position. The antennae of moths are usually feathery without a club. Butterflies, on the other hand, possess antennae that gradually thicken from the base upward to form a club.

But I digress.

The Atlas Moth is the largest moth in South East Asia. It is also relatively common, and they are found throughout India and South East Asia. We are fortunate to have quite a number on Pulau Ubin. They feed on the leaves of a wide range of trees, from the Starfruit tree (*Averrhoa carambola*) to the Sentol (*Sandoricum koetjape*).

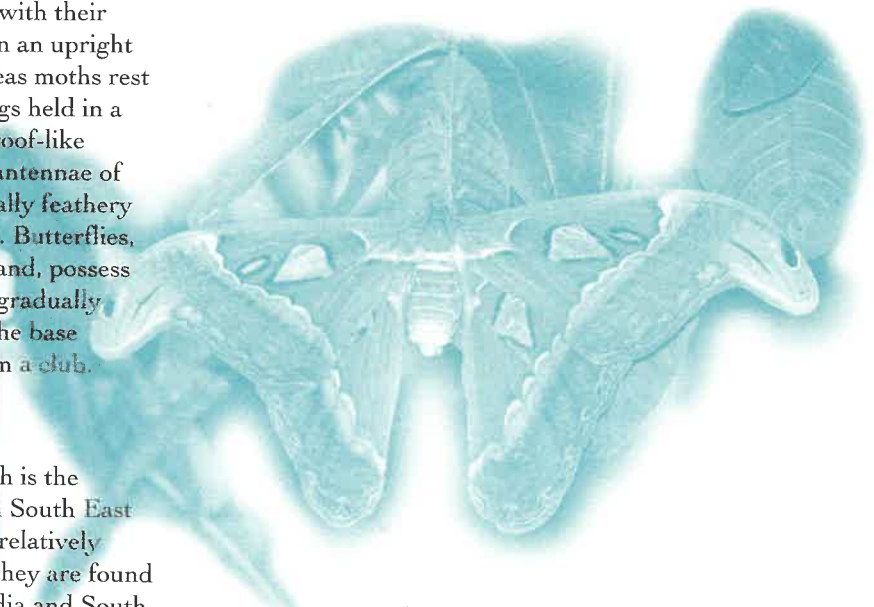
The larva or caterpillar is large, and is without doubt a veritable feast for any insectivorous bird. It has a

voracious appetite and consumes leaves with rapidity, leaving only large balls of fecal-matter in its wake. A large number of subspecies have been described, but the one on Ubin has larva that is pale green with white powdery speckles, complete with a series of dorsal and subdorsal green spines.

The adult has a stout, hairy body with a short abdomen that is quite out of proportion to the enormous wings. They are most active at night, with an irregular flight, and are readily attracted to light. The females are generally

passive before mating, but they are known to position themselves such as to enable maximum dispersal of their sexual attractants by wind. Males up to three miles downwind can detect these scents! Imagine if this was the same for humans - it would give a new meaning to the word 'haze'!

Interestingly enough, the females will readily lay unfertilized eggs. These will hatch and develop to produce male moths only. In light of this, the next step in conserving the Atlas Moth would be enrolment in an extended family planning course, no? 🦋



*Atlas Moth*



*Atlas Moth Caterpillar*

# Sungei Buloh Nature Park

## 5<sup>th</sup> Anniversary Celebration

**T**he Park stirred to life even before the day broke. The staff went about their duties making sure that everything was in order for this big day. Even the birds and animals seemed to sense the festive occasion and greeted our guests with their candid appearances. The whole year of celebration came to a culmination on this day as the Park celebrated its 5th anniversary.

Mr Koo Tsai Kee, (Parliamentary Secretary, Ministry of National Development), graced the birthday celebration as our Guest-of-Honour along with Professor Leo Tan, (Chairman, National Parks Board), Mr Connal Rankin, (General Manager and Chief Executive Officer, HongKong and Shanghai Banking Corporation), Dr Tan Wee Kiat, (CEO, National Parks Board) and Mrs Lee Wai Chin, (Deputy CEO, National Parks Board).

Some 300 invited guests were also present to witness the presentation of prizes to the Grand Finalists of the year-long Spot Art Competition. Another highlight of the day was the launch of "Hardy Driftwood in A Wetlands Adventure", an animation programme produced by HSBC to

promote wetland education for school children. The high point however was reserved for the unveiling of a commemorative mural entitled "Visions", made up of terracotta tiles each depicting the eye of a species of fauna in the Park. Collectively, they formed a larger human eye. After the launch, the VIPs and invited guests were whizzed around the Park for a tour.

Many activities were planned throughout the year in the countdown to the Sungei Buloh Nature Park's 5th anniversary. All in the hope to augment nature awareness at the Park. The event ended with a resounding success as many left the Park knowing that we did and will continue to protect this ecological jewel that we were entrusted with.

Singaporeans live in a highly urbanised environment. Nature areas, such as Sungei Buloh Nature Park, play a useful role in according us the opportunity of being close to nature, be it for recreation or simply for solace from the hustle and bustle of city-life. As Prime Minister Goh Chok Tong said when he opened this nature park 5 years ago, "Whenever possible, nature areas should be put to complementary use so that Singaporeans

can enjoy our natural heritage and learn to appreciate nature."

Singapore's small size, however, posed a challenge for nature conservation. There are many competing demands for land use - for housing, business, industries, transportation and other infrastructure developments. Despite our physical constraints, the Government has set aside land for nature conservation because it recognises the importance of preserving our natural heritage.

But we must be practical and realistic. It is not possible to conserve every nature area in Singapore or any area that is inhabited by wildlife. It is the Government's responsibility to maximise the use of land in the best interest of Singaporeans, while at the same time to strive to conserve important nature areas for both our present and future generations.

The National Parks Board plays an important role in nature conservation. NParks advises the Government on development proposals and on management policies for

the designated nature areas. It monitors and co-ordinates measures to protect these areas. One of the key thrusts of NParks is to promote responsible conservation of our natural heritage. This is done by monitoring and enhancing the bio-diversity of nature areas and by generating interest in nature through the provision of educational packages and the sharing of experience and expertise with the public.

Sungei Buloh Nature Park is a testament to NParks' effort at promoting nature conservation and increasing nature awareness. This 87-hectare park is not just the only wetland nature park in Singapore; it is also one of our largest conservation projects. It has been argued that our parks, being man-made, do not exemplify nature conservation. Sungei Buloh Nature Park, however, is a fine example of man working in harmony with nature.

This park was previously a prawn farming area that was zoned to become an agrotechnology park. The Government decided to turn it over to the birds. Today, the park is home to some





500 species of flora and fauna. It is an important stopover point for migratory birds from as far as north of Siberia during the northern wintry months. More than half of the bird species in Singapore can be found here. The heronry on the park's "Heron Island" is the breeding ground for over 100 pairs of the Purple and Grey Herons.

I understand that as part of the 5th anniversary celebrations for Sungei Buloh Nature Park, NParks and Hongkong and Shanghai Banking Corporation had put together a series of



Showtime.

activities. Indeed, the countdown began on 30 November last year, kicking off with the "Care-for-Nature" Spot Art competition and the setting up of Sungei Buloh Education Fund. Other highlights include the launch of a new guidebook and new thematic trails and guided walks to make visits to Sungei Buloh more memorable and meaningful. This morning's celebration therefore represents the climax of a full year of activities at Sungei Buloh Nature Park.

Ladies and Gentlemen, NParks' efforts in developing Sungei Buloh Nature Park have paid dividends. The park's biological diversity has been enhanced over the past 5 years.

Though still a relatively young park, Sungei Buloh is carving a niche as a centre for wetland park management in areas of conservation, education, research and compatible recreation.

I understand that the park is used extensively by schools and the community for education, by researchers for their research and by the general public for recreation. Of the 80 000 people who visit the park each year, some 40% are students who come on specially tailored programmes to study the mangrove and freshwater habitat, for birdwatching and for nature trekking. I commend NParks for these successful outreach programmes, both for schools and general public.

To conclude, I would like to reiterate that the



Grand Finalists of the year-long Spot Art Competition.

Government remains committed to nature conservation. At times, decisions made in the overriding national interest may not please all nature-lovers. But this does not detract from the Government's appreciation of the need to safeguard Singapore's national heritage wherever feasible for our future generations. Thank you.

Mr Koo Tsai Kee  
Parliamentary Secretary  
Ministry of National  
Development  
5<sup>th</sup> Dec 1998

Chairperson :  
Ms Debra Yeo

Honorary Secretary :  
Mr Keith Hillier

Treasurer :  
Ms SK Kwan

Member :  
Mr Wong Kum Sang

Member :  
Ms Thng Hui Hien

Member :  
Ms Loh Jing Ling

**A year has passed and it is time to pass on the baton. Find out who are the successors as CHAN SU HOOI introduces you the new Volunteer Committee for 1999.**

## Volunteer Annual General Meeting

It did not take long to vote in our new volunteer committee members. All the members took up their post enthusiastically and were eager to commence their duties.

Much happened during the AGM. The Senior Manager briefed and kept the volunteers updated on

Sungei Buloh future developments as well as informed them of current research projects that are on going in the Park. The more experienced volunteers decided to take the initiative to help train the new recruits and organise the roster for the Saturday guiding duties. The Park will however arrange more intensive training for all volunteers.

A number of places were also proposed for volunteer outing. One of which is our

new Headquarters at Botanic Gardens. The volunteers were also invited to participate in our talk cum slide show presentations for the public on their specialty subjects.

At this note, we like to thank the past volunteer committee for their dedication and significant contributions to the Park as well as welcome the new volunteer committee.

Volunteers in Union.



compiled by chan su hooi

# Calendar of Events

## Free Guided Tours

Free guided tours every Saturday at 9am, 10am, 3pm & 4pm. Come discover the Park's unique flora and fauna. (Service will not be available if there is an ongoing activity at the particular time slot.)



## Nature Talks

1st Saturday of the month. Want to spend an afternoon, from 3-4 pm, learning and sharing knowledge? Come join us for the talk cum slide presentation on interesting topics by experts in different fields. Do look out for more details in the PAPERS!

## BirdSketch '99

2nd Saturday of the month. Circles, squares, rectangles, triangles... .. Do you know that birds come in shapes that are familiar to us? Come and join us for a quick and easy way of learning how to draw birds using simple shapes.

## School Talks

Slide talks that bring the Park closer to schools.

### 1 April

CHIJ Ponggol & Chong Shan Primary School

### 27 May

Ahmad Ibrahim Primary School & Jing Shan Primary School

### 1 July

Kong Hwa Primary School & Teck Ghee Primary School

## Adopt Sungei Buloh

### 13 Feb - 14 Aug

- Woodlands Secondary School

### 22 Mar - 18 May

- Raffles Girls' Secondary School

## HeronWatch '99

17 April, 22 May & 26 June '99.

Join us as we bring you along a fun-filled journey to discover more about these magnificent birds.

## Teachers' Workshop

June 99.

A half day workshop is conducted for school teachers to familiarise them with the Park as well as to help them plan more meaningful field trips at Sungei Buloh.

## Ecology Trail

On-going.

Let "A Window to the Big Picture" lead you through some basic concepts of Ecology. Venture from station to station along Route One and discover fascinating facts of life.

Please call 794 1401 for confirmation of activities.



There are always new discoveries rewarding the patient and observant at Sungei Buloh Nature Park. Bringing you up to date with the latest sightings is **ADELINE CHIA.**

# OTTERS IN SIGHT

All binoculars were trained on the two that were playing and foraging in the water. They chased each other in circles, sometimes stopping to look at the inquisitive pairs of eyes staring at them. Undaunted, they went about with their own activities. Just when one caught a fish, it would proceed to devour it with much relish while the other foraged nearby, hoping to catch a meal too. Yes, we are talking about otters and all these sightings could be seen as near as the main bridge at Sungei Buloh Besar. The two otters have been spotted around the Park since November last year, much to the delight of visitors and staff who were lucky enough to catch sight of them. They are identified to be the Smooth Otters (*Lutra perspicillata*). Sightings of otters in the Park occur every now and then in the past years. However, only individuals were spotted. Thus it was heartening to discover the pair in the Park last year.

to rub themselves dry. A wet otter's coat looks spiky when on land. To squeeze the water out it will roll on the ground and rub itself against stones, patches of grasses and other objects. Smooth Otters are found in Asia and they live in mangroves, freshwater wetlands and large forested rivers. Their favourite food includes fish, molluscs and crustaceans.

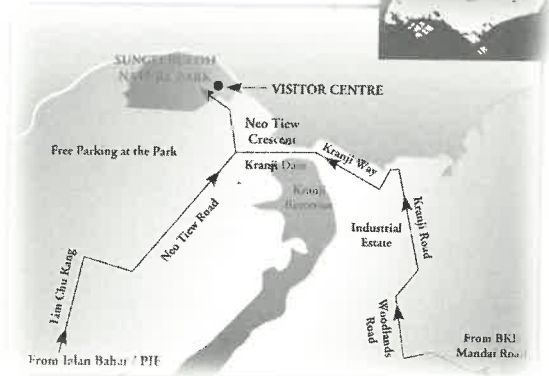
Most sightings of the pair in Sungei Buloh have been of them foraging and feeding. It is uncertain where they came from, but a good guess is that they may have swam across the Johor Straits. We do not know how long they will stay but do come to visit us soon. The sexes of the pair are also unknown. Imagine them as a courting pair. Hmm.....baby otters in Sungei Buloh?



Speaking of sightings, staff of the Park and Nature Society Singapore members were ecstatic when a Masked Finfoot (*Heliopais personata*) was spotted swimming in Sungei Buloh Besar in early January. This is a first record for Singapore. It stayed in the river for a few days and vanished soon after. Now that is what I call exciting. You just never know what you will discover in Sungei Buloh Nature Park.

Otters are mammals adapted to a life in water and on land. On land they are usually clumsy but in water they are skilful swimmers. A long heavy body, small head and a thick tapering tail gives them a streamlined appearance. This enables them to manoeuvre through the water with ease. Contrary to belief, their fur is not waterproof. They are kept afloat by air trapped within the fur while swimming and they have to come up to land

## Map to the Park



### Opening Hours

7.30am to 7.00pm on weekdays

7.00am to 7.00pm on weekends

Sungei Buloh Nature Park  
301 Neo Tiew Crescent  
Singapore 718925

Tel: 794 1401  
Fax: 793 7271

### Admission

\$1.00 per adult

\$0.50 per child/  
student/senior citizen

### E-mail:

[sbnp@pacific.net.sg](mailto:sbnp@pacific.net.sg)

### Website:

<http://www.sbnp.org>

### Audio-visual Show

Mondays to Saturdays

9.00am, 11.00am,  
1.00pm, 3.00pm,  
5.00pm.

Sundays and  
Public Holidays  
Hourly from  
9.00am to 5.00pm

### Visitor Centre Facilities

- Theatre
- Cafeteria
- Nature Gallery
- Nature Cove
- Toilet

### Park Facilities

- Boardwalk
- Route 1
- Route 2
- Route 3
- Bird Observation Hide
- Tower Hide
- Screen
- Outdoor Classroom
- Platform
- Shelter
- Binoculars
- Emergency Walkie-talkie

### Getting There

Mondays to Saturdays:

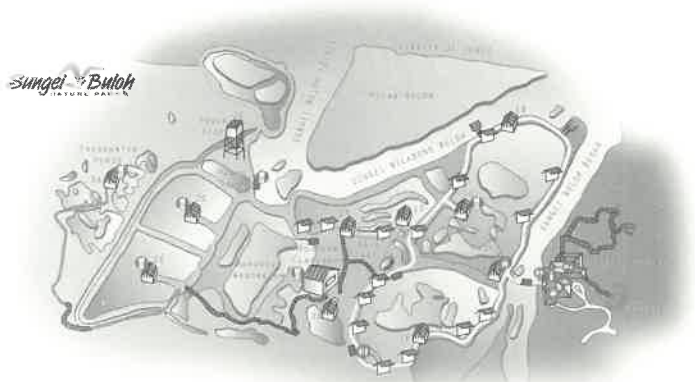
Board service  
TIBS 925 from  
Kranji MRT Station.

Alight at Kranji  
Reservoir carpark  
for a 15 min walk  
to the Park.

Sundays and  
Public Holidays:

TIBS 925 will stop at  
the Park entrance.

## Map of the Park





**Care-for-Nature**  
PROTECTING OUR LIVING RESOURCES


At HSBC, we believe that every time you see a flower, it is nature's soul smiling at you. That's why

we're doing all we can to help preserve what nature has bestowed on us. Our Care-for-Nature programme was created in 1989 to address the important issue of protecting the environment, not just in Singapore, but throughout ASEAN. Under the programme, HSBC has, together with the Singapore Philatelic Bureau, produced a series of environmentally-friendly

Care-for-Nature Collector's Covers and Stamp Prints. Environmentally-friendly because proceeds from the sale of these go directly into the Care-for-Nature Trust Fund. Money from this independently administered Fund is used to support a wide range of environment conservation and education projects. From reef rescue

missions and ecological research, to establishing enrichment programmes for school children, international youth conferences to promote awareness and even a scheme to send our youth leaders on overseas expeditions to broaden their perspective on the environment. The Care-for-Nature Stamp Series has been well-received since its introduction in 1991. The eighth

series features Flowers, the Colours of Nature. It is a practical means of raising public awareness of the need to protect our environment. And a simple way for you to stamp your support for nature conservation.

 **Care-for-Nature Collector's Cover.** The Care-for-Nature Collector's Covers are printed on environmentally-friendly paper and feature a special Care-for-Nature cachet in addition to the official date stamp. The Collector's Cover is priced at S\$9.90. It doesn't cost the earth, and could well

help save it.  **Limited Edition Stamp Print Collection.** Also available is the Limited Edition Stamp Print Collection. Only 500 sets exist, and are exclusively yours at S\$338 for a framed set of four and S\$198 per set without frames. Each serialised print comes with a certificate of authenticity and is signed by the artist,



## DISCOVER THE RESTORATIVE POWERS OF FLOWERS FROM OUR BRANCHES.

Ms Elsie Koh.  **Pick up some flowers from our branches.** These Collector's Covers and Limited Edition Stamp Print Collections can be purchased at any HSBC branch or from Public Affairs & Advertising (Tel: 530 5100). Subtly scented, these stamps remind us to take time to smell the flowers. So if you really care, say it with flowers.

Each Limited Edition Stamp Print measures 24.5cm x 24.5cm.



Each Care-for-Nature Collector's Cover measures 11cm x 22cm.

Issued by The Hongkong and Shanghai Banking Corporation Limited, which is incorporated in the Hong Kong SAR with limited liability.

HSBC 