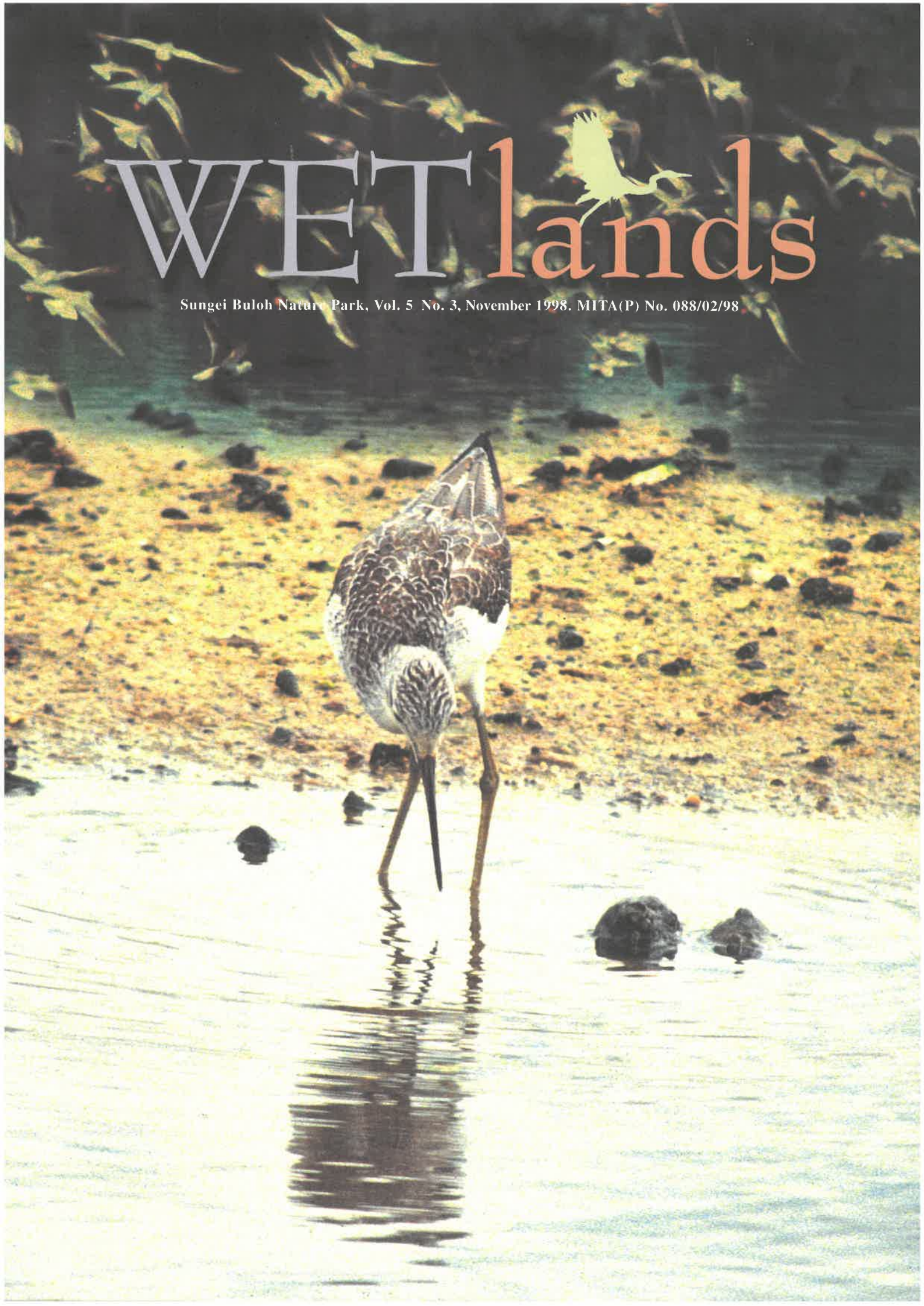


# WETlands

Sungei Buloh Natural Park, Vol. 5 No. 3, November 1998. MITA(P) No. 088/02/98



# C O N T E N T S

## C O N T E N T S

*“Our universe is a sorry little affair unless it has in it something for every age to investigate ... Nature does not reveal her mysteries once and for all.”*

Seneca, Natural Questions  
Book 7, first century

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

*A new light to migratory birds.*

### 4 **Park Programmes**

*These are the friends of the Park that can bring you closer to nature.*

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*Recollection with Photo Essence.*

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### 11 **Park Information**

*All you need to know to get here.*

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Picture of a Marsh Sandpiper,  
*Tringa stagnatilis*, with a flock of flying  
waders.

## EDITORIAL

It's the season to be jolly. Not only have the school holidays arrived, our feathered friends of distant shores are here for their summer holidays too.

As a mark of welcome, join us as we embark on our annual birdwatching sessions to get acquainted with them. Journey with us as we present you opportunities to know more about these birds through the eyes of our staff.

A nature ramble down memory lane brings you the actions that took place at the Park. Find out more about what's happening and make sure you don't miss out on any of our interesting programmes.

Last but not least, a Happy Birthday to Sungei Buloh Nature Park. We turn 5 this coming December 98. Join us in the celebrations as we take flight to higher grounds.

*linda goh*



Blue-tailed Bee-eater

Though Sungei Buloh Nature Park is well known for its migratory shorebirds, it is also a haven for other migratory birds. Venture with **JAMES GAN** as he gets us acquainted with these 'flying colours' from afar.

# Colourful Migratory Birds

**M**any of you may be familiar with the waders of earthy tones that make their appearance in Sungei Buloh in the later part of the year. But do you know that Sungei Buloh Nature Park also attracts many migratory birds that are non-waders and in all colours too? Nature lovers will be interested to know that Singapore is located within the non-breeding area for these other migratory birds. The birds can usually be seen at the Park between September and March during their non-breeding period. Let us take a look at three of these birds.

The Common Kingfisher (*Alcedo atthis*) breeds in Northern Asia such as Taiwan and Korea. This is a small, compact blue bird often seen perching on posts or branches in the Park. Migration occurs mainly at night and it may even fly over mountains. It is also adept at flying close to the ground and water at speeds of over 40km an hour! Look for it at the Visitor Centre ponds and catch it in action!

Known to be strongly territorial, the Black-capped Kingfisher (*Halcyon pileata*) usually returns to the same area to winter every year. Being large and with plumage of blue, white and black, it is fairly prominent. However, it is also fairly shy so while looking for it at the Mangrove Arboretum, be very quiet and avoid sudden movement.

Best observed at the freshwater ponds, the Blue-tailed Bee-eater (*Merops philippinus*) feeds on bees, dragonflies and other insects while in flight. Interestingly, the bee-eater is also known to take small fish for food too. Their migratory patterns are as yet unknown

but they can be seen in the Park sporadically during the northern winter season.

So do watch out for these colourful migratory birds on your next visit to the Park. 🦋

Black-capped Kingfisher



picture by ballalab abmad

Common Kingfisher

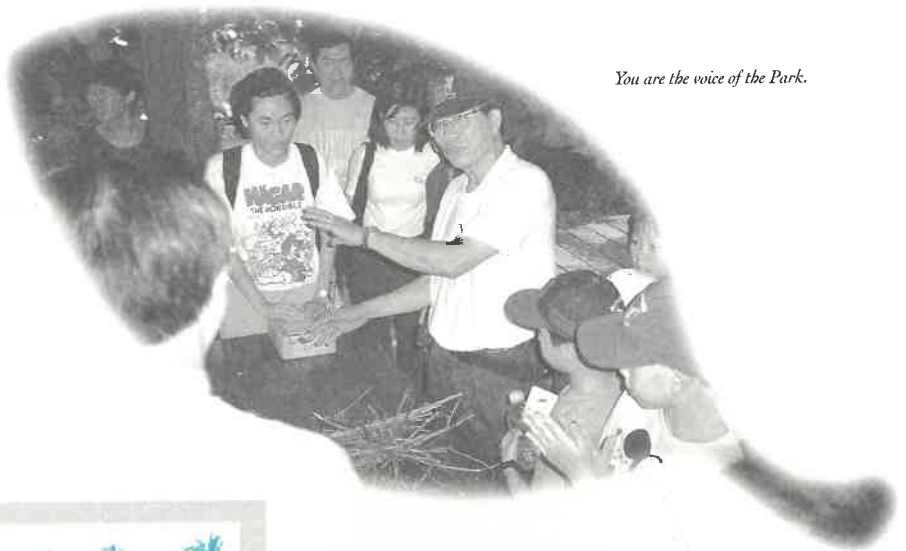


picture by ballalab abmad

# Friends of the Park

By **LINDA GOH** and **CHAN SU HOOI**

**T**he group grew from strength to strength. 5 years have passed and some of them are still going strong. They are the advocates, the ambassadors and the friends of Sungei Buloh Nature Park. As we celebrate our 5th anniversary, we would like to pay tribute to our strong pool of committed volunteers who weathered it all with us through the years. This page is dedicated to all of you. Thank you for being a friend of the Park.



*You are the voice of the Park.*



*Rain or Shine  
Thick or Thin  
You are there.*



*You make learning enjoyable.*



*You bring a smile to people's faces.*



*You bring people closer to nature.*















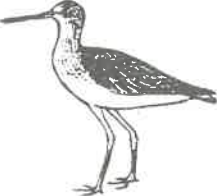


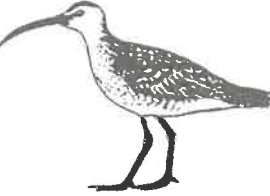


*You, yes, all of you do make a difference.*

As a mark of welcome to our feathered friends from Siberia, the Park is hosting a week long of birdwatching sessions from 5 to 12 Dec 1998 for all Park visitors. Guides will be stationed at the Main Observation Hide at 9am and 3pm to give you a few pointers on how to identify the waders. Make a date with us to enjoy Mother Nature's handiwork.



# Bird Watch '98

Here is a sample provided by **CHAN SU HOOI** on how to tell the waders apart.

BIRD (SIZE / SHAPE)	BILL LENGTH/SHAPE	PLUMAGE/ LEG COLOUR	FEEDING HABIT
 Curlew Sandpiper	 Medium (1-1.5X)	Has a slight down curved bill. Upper parts are pale grey and has white underparts and eyebrows. Legs black.	
 Pacific Golden Plover	 Short (<1X)	Has a mottled brownish plumage, speckled with gold. It probes the upper layer of mud, feeding by sight. Bill and legs dark brown.	
 Marsh Sandpiper	 Medium (1-1.5X)	Commonly mistaken for the Greenshank. It is however smaller and slimmer than the Greenshank and has a black needle-like bill. Extremely long, greyish-green legs.	
 Common Redshank	 Medium (1-1.5X)	Has red legs and a black bill with a red base. Upper parts, head and neck are grey brown.	
 Common Greenshank	 Medium (1-1.5X)	It is larger than the Redshank. Has greenish-yellow legs and a black bill that is slightly upturned. Upper parts, head and neck are light grey and mottled.	
 Whimbrel	 Long (1.5 - 2X)	This bird has a down curved bill. It is dark brown and has buff and black stripes on its crown. Legs bluish-grey.	

How far can the migratory birds travel? When do they know it is time to migrate? Find out more as **LIM HAW CHUAN** reveals some intimate details of our "fair weather" feathered friends.

# A Year in the

**M**any shorebirds (*Order: Charadriiformes*) are marathoners of the animal kingdom. The many brown birds you see on the mudflats in Sungei Buloh Nature Park during September to March breed in places like Siberia, Northern

these birds, the magnificent travellers.

all these sound hectic to you, it is. Northern summer

## Breeding Ground

A typical wader would probably arrive at its breeding ground in the arctic tundra or taiga in May, as soon as the snow covering is melting away. The next 1 or 2 weeks will be spent on establishing a territory, courtship and mating. Eggs, usually a clutch of 4, are soon laid and the next 3 weeks are spent on incubating the eggs. As different species practise different mating system, either both parents or just one of them will incubate the eggs. The hatched nestlings are quite independent soon after hatching. The parents or parent will then spend the next 3 weeks caring for the young. As soon as the duties of the parents are discharged, they will fly south again, followed by the juveniles separately. If



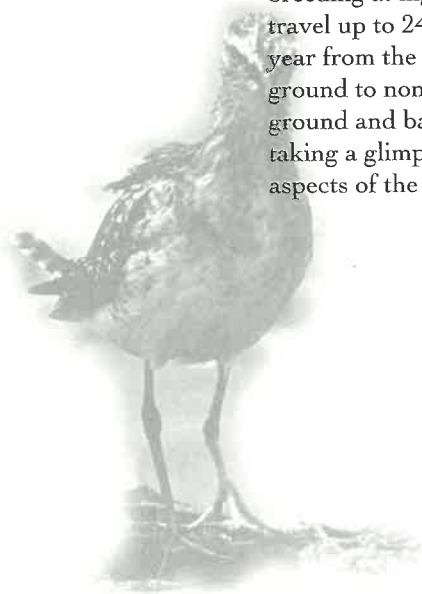
is short and particularly precious; food supplies decline very fast.

## The Journey

To travel thousands of kilometres with largely inhospitable habitats or barriers in between is not an easy feat. There are several things to be taken care of. The first thing will be timing of the move. Like many other animals, migrant birds possess an internal clock that corresponds to the annual cycle. This clock and the general shortening of the day length will prompt the birds to get ready by accumulation of fat as a source of energy and enlarging their flight muscles. When flying, waders, like other birds may have a repertoire of



China and Alaska. Some species are known to be able to travel at least 4000-5000km on a single non-stop flight while some species breeding at high arctic may travel up to 24 000km per year from the breeding ground to non-breeding ground and back. We will be taking a glimpse at some aspects of the biology of



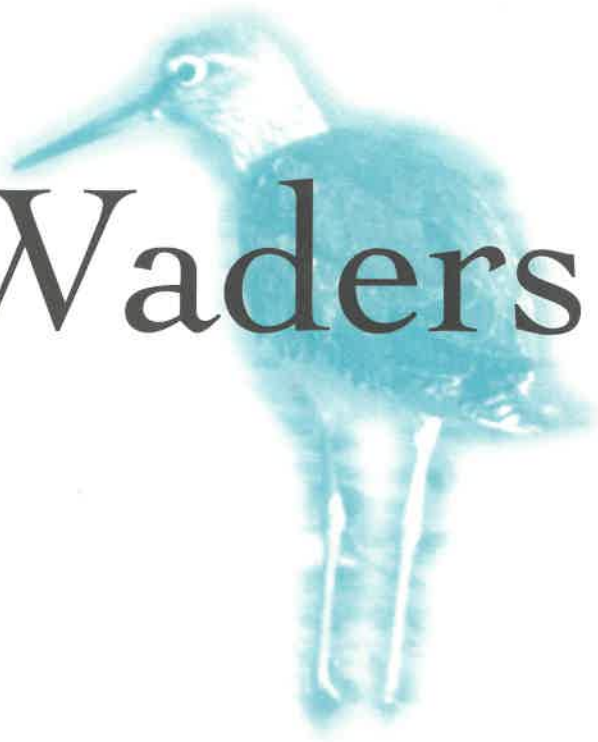
# Life of Waders

navigational skills. The obvious one is the use of the sun as a directional guide. But since the sun is always moving across the sky, its use must be coordinated by an internal clock that tracks the time of the day. At night, the moon or the night sky may be used. When using stars, the birds will judge direction using the axis of rotation of the sky (at the polar star in northern hemisphere). Other cues for navigation used by birds are the earth's magnetic field, the landscape below and sound waves. The fact that some waders from the continents arrive at tiny islands in the middle of the Pacific Ocean yearly is testament of their ability. En route to non-breeding ground, some waders will utilise a tapestry of coastal or inland wetlands or other suitable habitats as stopovers, particularly when the

weather condition is not favourable. Others will cover the journey in a few very long flights.

## Non-Breeding Ground

After arriving at the non-breeding ground in the south, the waders will replace their flight and contour feathers that have been well used in the last few months. This time of the year can become comparatively relaxing for them since all they have to do is basic survival, feeding and roosting. It is when February is approaching that they have to start preparing for northward migration and repeat the magnificent feat. 🦶



Sungei Buloh Nature Park lies along the East Asian Flyway and we do get these waders stopping over to feed and roost on our mudflats.



From the beautiful stone island, **BRYAN WEE** brings you an anecdote of the striving ancestor of all domestic breed of poultry.

# Burung Di Ubin

## (Birds of Ubin)



photo by wong tuan wab

One can find more than a hundred bird species, both resident and migratory, on the island of Pulau Ubin. However, there is none quite as distinctive or unique to Singapore as the Red Junglefowl (*Gallus gallus*).

The Red Junglefowl holds the honor of being the ancestor to all domestic breeds of poultry. In light of this fact, it may well be the most numerous species of

bird on earth, having found its way to many a dining table all over the world.

In Singapore, wild populations of this bird are found only on Pulau Ubin. Attempts are being made to introduce this bird onto the mainland, but it remains to be seen if the pioneer group can keep their bloodline intact because of their apparent readiness to mate with domestic poultry.

The Red Junglefowl can usually be distinguished from the domestic chicken by slate-grey legs (male only) and a prominent white patch at the base of the tail. One subspecies also has a very obvious whitish ear spot. The variation between the races is most noticeable in colour, length and shape of male hackles during the breeding season - now, who

says size does not matter?

Apparently, it is not just the physical appearance that sets the Red Junglefowl apart from its domestic counterpart. The former also gives the familiar cock-a-doodle-do call, but only at a slightly higher pitch and ends it more abruptly. Shy creatures by nature, they are best seen in the early mornings and late afternoons, scratching for invertebrates at forest edge clearings. Their nests are often hidden in dense undergrowth, and lined with dry grass.

Thank goodness though, that despite its popularity as a food dish and being subjected to relentless hunting in several Asian countries, the Red Junglefowl's present status worldwide is stable. 🐔

Red junglefowl



photo by wong tuan wab



Take a walk with **LINDA GOH** as she brings you down memory lane.

# The Essence of the Natural Experience

photo by baillab abmad



11 July 98  
Volunteer Recognition Event  
*We appreciate your contributions to the Park.*

photo by aivaoatbi



19 September 1998  
International Coastal Cleanup  
*A meaningful experience for the Singapore American School.*

22 August 98 and 5 September 1998  
Woodlands Sec Sch volunteering session  
*It is time to dig in and make the land fruitful.*



photo by linda goh

27 September 1998  
Passerine ID  
*Kenneth Kee and Keith Hillier led a group of eager staff and volunteers into the Park to watch our perching friends.*

photo by linda goh



23 August 98  
Kukup Trip  
*Fresh viewpoints of the mangrove.*

September 98  
Milky Stork  
*Spot and Stalk the Milky Storks*



photo by wong tuan wub

2 Oct 1998  
Commencement of Guided Tours for walk in visitors  
*From now till 19 Dec 1998, visitors can get to enjoy guided tour every Fridays and Saturdays at 9am, 10am, 3pm and 4pm.*



photo by baillab abmad

## 8 August 98 Butterfly Appreciation

It was no easy task as **S K KWAN**, a volunteer of the Park, commenced our inaugural volunteer-train-volunteer session whereby we went in search of the elusive painted wings. With the wind beneath our wings, the chase was on.

The first volunteer-train-volunteer session was kicked off with a small round of Butterfly Trivial, like how to differentiate a butterfly from a moth. However, trivial pursuit it was not, as we soon found out that butterfly watching was a more arduous job than bird watching. Not only are the butterflies smaller, they are rather fickle-minded too, never seeming to be able to make up their mind about where to settle for a spot of sunbathing. Eventually when they did co-operate, we found that our binoculars were too

powerful and we had to move backwards to see them properly!

The good thing about butterfly watching is that one does not have to get up or out early. The best time to observe these insects are when the sun is up with a light breeze, typically between 10am to 12pm and 2pm to 3pm.

In the short one and a half hours in the Park, we managed to chalk up 14 species of butterflies flirting happily among their food plants before we headed back to the Visitor Centre. 🦋

# High 5

# Happy Birthday to Sungei Buloh Nature Park

Come celebrate this day with us as a series of activities have been planned for you.

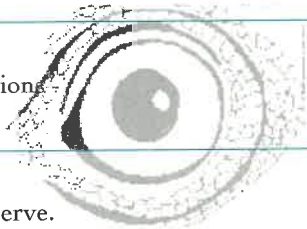
## 5 DEC 98

Guest-of-Honour, Mr Koo Tsai Kee, Parliamentary Secretary, Ministry of National Development.

Presentation of 'Hardy Driftwood in a Wetlands Adventure'.

Prize presentation of the year long "Care-for-Nature" Spot Art Competition.

Unveiling of mural "Visions"



Birdwatching in the reserve.

Screening of 'Hardy Driftwood in a Wetlands Adventure'.



by wing about bird

## 5 to 12 DEC 98

### BirdWatch '98

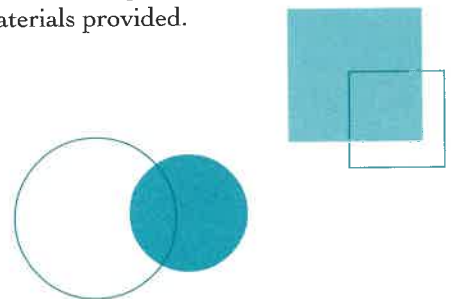
Take part in our birdwatching sessions with the volunteer guides at the Main Observation Hide, 9am and 3pm.

## 8 and 10 DEC 98

Learn how to draw birds during our Bird Sketching sessions at the Workroom, 10am, 2pm and 4pm. Materials provided. Call 794 1408 for priority booking.



by linda gob



# I SPY WITH MY LITTLE EYE

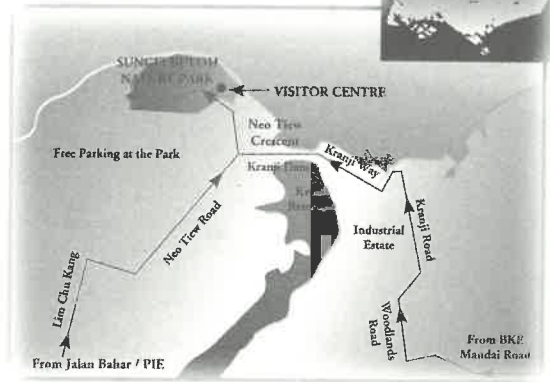
Counting shorebirds is a regular activity held in Sungei Buloh. Unearth why and how it is done with **ADELINE CHIA**.

## Why wader census?

**W**ader census is carried out twice a week at Sungei Buloh during the migratory season. Why bother, some of you may ask. Well, you see, by having regular census in the Park, we can determine the important periods in which the birds arrive and depart during migration. This helps us to keep track of the population change as well as better understand the roles in which the mudflats here play in the migration routes of these shorebirds. Wader census is usually carried out during high tide whereby the birds which are looking for a safe place to roost will find it in the form of one of the ponds with the water kept low through our sluice management programme. With our 'bionic eyes' (our telescope and binoculars actually), we comb through the mudflats in search of the waders. To do a count requires some co-ordination between the staff. Each counting site is divided into two or more areas between the counters (usually 2 people to count and one to record). Counts are usually estimated when the birds are in constant movement (flocks flying into a roost

site), when the numbers are too large or when they are tightly packed together etc. This is done by estimating the number of birds (eg. 50, 100.....) in one field of vision in the telescope/binoculars before moving on to the next field and so on at the site. The counts are recorded on site into a field notebook and transferred into the database for storage and further assessment. Sometimes disturbances to the birds, such as an inquisitive monitor lizard or a bird of prey circling above, can cause them to fidget and move. The worst scenario will be to double count birds which have flown in from areas that have already been covered. Fortunately, this is not common because waders do not move about much once they settle in nicely on a roost site. In most cases when they are disturbed, they may fidget and take flight. However they will usually return to the same spot almost immediately and all that is required is a little patience for them to settle down again. So you see, it is not easy counting our visiting friends after all.

### 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:

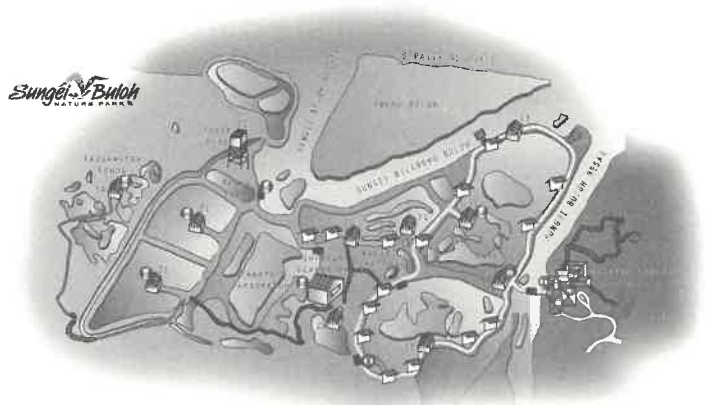
Board service  
TIBS 925 from  
Kranji MRT Station.

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 HongkongBank, 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. HongkongBank's 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, HongkongBank 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. This year, an 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, 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 HongkongBank branch, HongkongBank Public Affairs & Advertising (Tel: 530 5100) and Singapore Post (Killiney Road, Tel: 734 7899). The Collector's Covers are also available at all post offices. Subtly scented, these stamps remind us to take time to smell the flowers. So if you really care, say it with flowers.



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

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



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



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