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NATURE WATCH

PLANET | PEOPLE | PARTNERS

THE RETURN OF THE Swallowtail Race

A WELCOME BOOST
for
BUTTERFLY LOVERS

One man's quest to document Singapore's beetles

How the Common Rose got voted as our National Butterfly

A tribute to Prof P. N. Avadhani (1932-2025)





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MESSAGE

A Season for Reflection, Hope, and Generosity

Mr Albert Liu

Assistant Director (Conservation), Nature Society Singapore Secretariat

AS 2025 DRAWS TO A CLOSE, it is a good time to reflect on our **transformation and growth**. The NSS Secretariat has almost doubled in size over the course of the year, as part of our long-term plans to strengthen **our cause for nature**, by delivering **impactful conservation**, nurturing **engaged participants**, empowering **competent volunteers**, and building **synergistic partnerships**.

These efforts have already paid dividends: In August, our expanded Secretariat organised the **2nd Swallowtail Race** for 15 participating teams, more than six years after the inaugural competition. At the same time, the Secretariat has been busy preparing for the **41st Singapore Bird Race** to be held in November. Our heartfelt thanks goes to **Mapletree Investment Pte Ltd** — our main sponsor for the Swallowtail Race and Singapore Bird Race — for making both of those high-key events possible.

In September, we launched our **inaugural Eco-Journey** to Bintan. Eleven educators, from pre-schools to polytechnics, met conservation champions, planted mangrove trees, and discovered how nature, culture, and community intersect. The encouraging feedback from our teacher participants affirmed the value of such immersive experiences. We will **expand Eco-Journeys** to more locations, and **extend** it to NSS members and the public, while also supporting our regional partners and communities.

Looking ahead, we will face headwinds: From April 2026, the Tote Board Enhanced Fund-Raising Programme will reduce its dollar-matching support to 50 per cent, down from the current 100 per cent. This is why **your generosity matters now more than ever. Help us maximise the dollar-matching before it is halved next year**. Your contribution will support our efforts to be the leading advocate for biodiversity and habitats in Singapore and beyond.



The NSS Secretariat is now a team of nine, after the addition of Mr Albert Liu (left), and Ms Shreeyaa Subra (second from left), Mr John Yip (fourth from left), and Ms Cherrie Toh (third from right).

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ON THE COVER The Great Mormon, a member of the swallowtail family of butterflies, seen here feeding on Ixora flowers in Pulau Ubin. Photo: Lee Ching Yong

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A great day for the 2nd Swallowtail Race

After a six-year hiatus, the Swallowtail Race has returned for a second edition to mark the 10th anniversary of the vote for the National Butterfly, the Common Rose. Here's what happened on the day of the race.

By SHREYYAA SUBRA

Spirits were high as participants gathered at Mapletree Business City to submit their race data.



As it turned out, it was a hot and sunny day on 2 Aug — ideal for spotting butterflies but not so good for participants of the 2nd Swallowtail Race, as they fanned out across Singapore over six hours, searching high and low for butterflies. Even so, spirits were high and, more importantly, everyone was determined. Together, the 15 teams of 62 participants recorded an impressive 128 observations of seven species of swallowtails.

The participants submitted their race data at Mapletree Business City, where they also enjoyed refreshments as they waited for the judges — Mr Steven Neo, author of *A Guide to Common Butterflies of Singapore*; and Mr Sebastian Ow Shu Yu, a senior manager in the Conservation Division, Central Catchment Nature Reserve Branch at NParks — to score and rank their observations.

Meanwhile, longtime Butterfly & Insect Group (BIG) members

Dr Anuj Jain and Ms Amy Tsang shared their experience in butterfly conservation, and offered the audience a celebration of progress and a call to continue protecting butterflies and their habitats. Mr Ganesh Kumar, chairman of the Woodlands Botanical Garden, also gave an impromptu talk about the efforts to conserve butterflies at the Garden.

Next, Mr Wan Kwong Weng, group chief corporate officer of Mapletree Investments, delivered the opening address on behalf of

our main sponsor, Mapletree. He congratulated the participants and organisers for making the Race a success, and expressed his hopes for more of such events.

And then came the moment everyone had been waiting for: the Race results. With 34 points, Team CRayOnSwallowtails took first place in the category for Highest Number of Points Accounting for Species and Individuals. They also went on to win the prize for the Best Photograph of the Day.

The event concluded with closing remarks by Ms Huang Ningxin, executive director of NSS, who gave an update on the expansion of the NSS Secretariat, and a preview of our upcoming programmes and initiatives.

The 2nd Swallowtail Race would not have been possible without the generous support of our main sponsor, Mapletree, and venue sponsor, Mapletree Business City. We also thank all our staff, volunteers, and participants for making the day truly memorable. 



Dr Anuj Jain (above left) revisited the journey that led to the Common Rose becoming the popular choice of Singapore's National Butterfly and highlighted further conservation efforts.

Ms Amy Tsang shared her journey in growing host plants at home and distributing them for butterfly conservation with the help of a supportive community.

Mr Ganesh Kumar (above right) talked about his experience of setting up the Woodlands Botanical Garden, and how it is contributing to butterfly conservation.



The 2nd Swallowtail Race was made memorable thanks to the passion and support of its participants, organisers and volunteers.

Don't play play, they're 'cray' on swallowtails!

They started the day on a disappointing note, and it seemed for a while they weren't going to get the results they wanted. But, as it turned out, Team CRayOnSwallowtails swept the top awards at the 2nd Swallowtail Race. Here's an account of how they did it.

By SIMON CHAN KEE MUN

It was only in June that I heard a 2nd Swallowtail Race was on the cards. The inaugural one was held a little over six years ago in June. This time, however, it was in August, when butterflies are less plentiful. Lepidoptera literature states that the best months for butterfly watching are from May to June.

That meant I had to assemble a team in less than two months. So, quickly I grabbed the person closest to me, my dear wife, Jing Ling. As the competition had two categories, the first being the most species sighted and the other, the best photograph, I decided to invite Jusri and Mithilesh to join me. Both are superb nature photographers in their own right; the former in macro pictures of spiders while the latter in zoom images of birds.

Once they agreed, I knew I had a multiracial and gender-neutral team on my hands in the spirit of our fast-approaching National Day. Then came the hardest part, giving the team an eloquent name. Something colourful and iconic. When we eventually



Team CRayOnSwallowtails (from left): Mohamed Jusri bin Bangi (driver, principal photographer), Mithilesh Mishra (principal photographer), Loh Jing Ling (recordkeeper, timer, secondary photographer) and Simon Chan Kee Mun (leader, secondary photographer). Photo: Simon Chan

settled on "CRayOnSwallowtail", I knew we had a winner.

Here's why: "Cray" is slang for crazy while "On" depicts the continued movement or action of someone or something. Both these words combined to make up "crayon" which represents creativity, art and diversity. Finally, the capitalised CROS is an acronym for Common Rose Of Singapore. Therefore, our team is continuously crazy about swallowtails, especially our National Butterfly.

Waking up early on 2 Aug, we arrived separately at our first location, the Lornie Park Connector Network (PCN). At exactly 7.45am we posted our team photo. We chose to start here because, on any given day, it is a great place for spotting the more

common swallowtails. Moreover, the Common Birdwing, Common Rose, and Great Helen butterflies had also been sighted here occasionally.

But as the day wore on, we managed to sight only a handful of Common Mormons, and managed just a few proof shots. Later, from 9am, we began to see more species, as well as a Common Bluebottle and three Tailed Jays pursuing each other fervently. Deep down, we knew we were in trouble because we had to have photographic or video evidence for the sightings to count. So far, we had only one species to show for our two-hour effort. At the back of our minds, we were thinking that at this rate we could well be finishing last.

Never the ones to give up, we made our way to the Botanic Gardens. While driving through a residential area, we spotted a male Common Birdwing gliding above us. So, while Jusri parked the car, the rest of us tried to capture it on film. The shots would not win any prizes but they were good enough for identification purposes. As if to mock our bumbling efforts, a flight of three Lime Butterflies fluttered past, too fast and too jumpy for us to shoot them on camera. Still, with the birdwing shots now in hand, we had our second species in the bag!

A half-hour stint at Bukit Timah Nature Reserve proved fruitless as we failed to spot the Great Helen, even though this was the second-most likely site for it to appear. We soldiered on and tried our luck at Dairy Farm Nature Park for the Five Bar Swordtail, but once again we fell flat on our faces. The only consolation –

if you could call it that – was that we managed to catch a glimpse of a fast-flying Blue Jay, but all our attempts to capture it on celluloid proved futile.

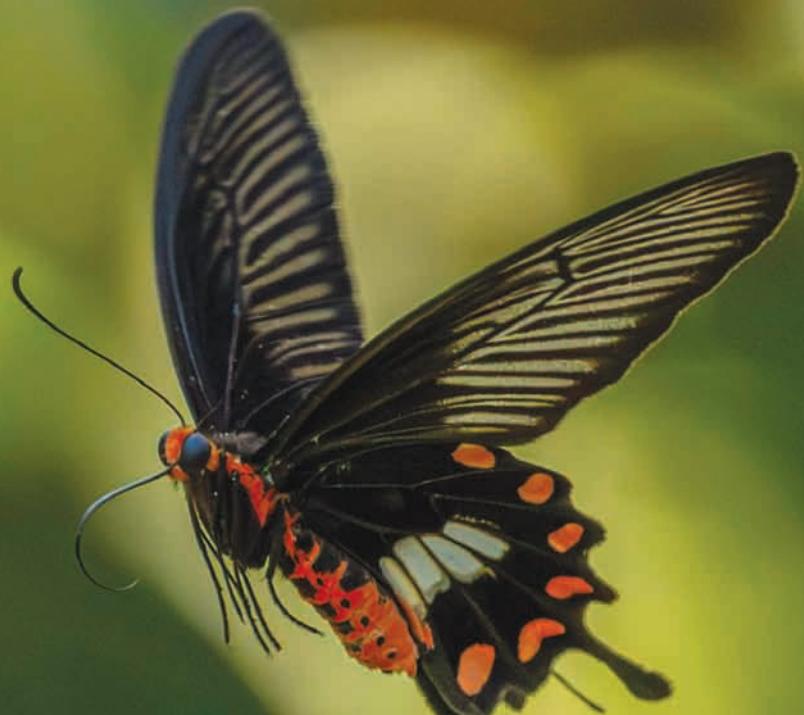
Time was ticking fast and at that point we still had no luck in locating the Common Rose. We were left with only HortPark, the site nearest to Mapletree Business City. There, we bumped into three other teams who had arrived earlier and spotted a Common Birdwing and two Common Rose butterflies. Almost to the last hour before the deadline, lo and behold, there at the former butterfly enclosure, appeared a black variation of the Common Rose, followed by a normal one. And just like that we had caught our third species with massive help from Mithilesh, who provided the best photo ever, a frozen mid-air flying shot of the Common Rose. It was really a case of “saving the best for last”.

All in, we spotted seven swallowtail species but only three counted towards our tally. In the end, we won most likely due to the sheer numbers of Common Mormons spotted at the five sites we visited. No doubt the birdwing and rose sightings helped somewhat. As for the best photo, we will let the picture speak for itself.

We will never forget the day, as all four of us came together to compete as one united team, regardless of race, language, or religion, echoing the pledge that we recite annually on National Day. As luck would have it, our National Butterfly decided to join us in our pre-celebration at the last hour of the competition.

It was indeed a fitting end to the 2nd Swallowtail Race! 

Almost to the last hour before the deadline, lo and behold, there at the former butterfly enclosure...we had caught our third species: a frozen mid-air flying shot of the Common Rose.



The top-prize-winning photo of the 2nd Swallowtail Race. Photo: Mithilesh Mishra

A look back at how the Common Rose became a national icon

The Common Rose may seem like a natural choice for Singapore's National Butterfly, but chances are it might still be unnoticed today if not for the hard work that went into organising the voting campaign, 10 years ago.

By SHREYAA SUBRA

Insects often go unappreciated despite being critical to our ecosystems. In 2014, under the chairmanship of Dr Anuj Jain, members of the NSS Butterfly & Insect Group (BIG) hatched the idea of a National Butterfly Campaign to rally support for the conservation of insects.

It was a project that took months to prepare, and ended successfully with the Common Rose (*Pachliopta aristolochiae*) becoming Singapore's National Butterfly by popular vote. This year marks the 10th Anniversary of that momentous campaign.

It was certainly not an easy undertaking. "We had high ambitions but not so much manpower in the group," Dr Jain admitted. "But the group kind of comes together when we do projects." Determined to give butterflies a voice, the BIG saw a perfect opportunity to introduce a new national icon during the SG50 celebrations.

In the lead up to the campaign, BIG members consulted with stakeholders from the nature community, gathering feedback on the idea. "We wanted to make sure that the idea first gets consensus across the community," Dr Jain explained. With preparations in place, the campaign for the National Butterfly was launched at PUB's Singapore World Water Day on 21 March 2015.

Over a period of five weeks, BIG members poured their energy into outreach. "There was a lot of work



Booth at PUB's Singapore World Water Day launching the campaign for the National Butterfly.



Dr Anuj Jain; Mr Gan Cheong Wee former chair of the Butterfly & Insect Group (BIG); and Mr Laurence Leong, former BIG member, at the launch of the campaign.

The National Butterfly Campaign 2015



Posters were put up in nature spaces, shops, community and residential areas, and online platforms.

THE NOMINEES

Common Birdwing
Troides helena cerberus

Common Rose
Pachliopta aristolochiae

Painted Jezebel
Delias hyparete metarete

Common Tiger
Danaus genutia

Common Tree Nymph
Idea stolli logani

The Knight
Lebadea martha parkeri



12-year-old Tan Teong Seng introducing the National Butterfly candidates at the Kids Walk at Jacob Ballas Children's Garden.

A total of 7,603 votes were cast, including those of then-deputy prime minister Teo Chee Hean and Dr Vivian Balakrishnan, who was the minister for environment and water resources at the time. Garnering 37% of the votes, the Common Rose was crowned Singapore's National Butterfly.

pushing out campaign materials because we didn't want it to just be people voting from NSS," Dr Jain said. Volunteer-led activities included walks, talks, workshops, and booths at various events across Singapore.

These outreach efforts were complemented by posters in online and public spaces. To further boost excitement, a lucky draw was introduced, to give voters a chance of winning an iPad mini, a year's worth of NSS membership, and a set of four NSS Pocket Guides.

The public were invited to cast their votes on the campaign's website for one of six butterfly nominees, each with a different story. The shortlisted nominees were: the Common Birdwing (*Troides helena cerberus*); Common Rose; Painted Jezebel (*Delias hyparete metarete*); Common Tiger (*Danaus genutia*); Common Tree Nymph (*Idea stolli logani*); and the Knight (*Lebadea martha parkeri*).

Finally, on 30 April 2015, the new national icon was unveiled at a highly anticipated event. A total of 7,603 votes were cast, including those of then-deputy prime minister Teo Chee Hean and Dr Vivian Balakrishnan, who was the minister for environment and water resources at the time. The Common Rose was crowned and declared the People's Choice of Singapore's National Butterfly with 2,805 votes (37% of the total). A follow-up questionnaire revealed that many chose it for its striking red-and-white wings, which reminded them of the Singapore flag.



Members of the public could vote for one of the six nominees to become the National Butterfly.

The campaign was made possible by the support of Shell Singapore, Keppel Land, PUB Singapore World Water Day, Jane Goodall Institute Singapore, and the SG50 Fund. Ten years on, the work to keep the momentum going remains strong. Thanks to the sustained efforts in outreach, research, and the active planting of the Common Rose's host plant, the Dutchman's Pipe (*Aristolochia acuminata*), our National Butterfly has

“If humans were to stop caring, would that species be able to survive by itself? For the Common Rose, that is not the case because its native host plant has been eradicated.”

Dr Anuj Jain

Former chairman of the NSS Butterfly & Insect Group who led the National Butterfly Campaign in 2015



The caterpillars of the Common Rose require their host plant, the Dutchman's Pipe, to thrive.



Ms Angie Ng sharing about butterflies to children at Queenstown Library for their 45th anniversary.

Common Rose crowned S'pore's national butterfly

Species at risk of dying out here emerges top pick in public vote

By FENG ZENGKUN
ENVIRONMENT CORRESPONDENT

THE Common Rose has emerged as Singapore's national butterfly, beating five other candidates in the contest held by the Nature Society Singapore (NSS).

"Fittingly, this 'uncommon rose' – which has declined to near extinction in Singapore – has red dots and white streaks on its wings, reminiscent of the five stars and crescent moon on the Singapore flag.

Also known by its scientific name of *Pachliopta aristolochiae asteris*, the Common Rose is found mainly in forests, although it occasionally feeds on the nectar of flowers found in parks and gardens on the forest edge.

Noting that the species is at risk of dying out here, the NSS said: "It relies on a single host plant – the Dutchman's Pipe – to feed it at the caterpillar stage, and the distribution of this plant in Singapore is very limited.

"It is important to encourage the growth of this plant in gar-



The Common Rose relies on a single host plant – the Dutchman's Pipe – to feed it at the caterpillar stage. PHOTO: NATURE SOCIETY SINGAPORE

the leaves of the Malayan Mistletoe – a parasitic plant of mature trees – when it is a caterpillar.

Singaporeans, permanent and working residents could visit a

with the Common Rose garnering 37 per cent of them. The Painted Jezebel was the first runner-up with 27 per cent of the votes, and the Common Tiger was third with

The result was reported on national news media, which helped to raise the profile of the Common Rose.

been downlisted locally from Vulnerable status to Near Threatened. "If you can celebrate a success, maybe it's that," said Dr Jain. "Maybe it's a testimony to how people have been caring for the species."

But the journey is far from over. "If humans were to stop caring, would that species be able to survive by itself?" mused Dr Jain. "For the Common Rose, that is not the case because its native host plant has been eradicated." The future of this national icon depends on our continuing ability to protect habitats, plant host plants, and reduce harmful practices so that the butterflies can eventually thrive on their own.

The story of the Common Rose's journey into becoming our National Butterfly highlights the power of community action. It reminds us that conservation is a shared responsibility, and if we give it enough commitment, care, and collective action, even the most delicate creatures will have a fighting chance of coming back from the brink. 



Shreeyaa Subra is Senior Executive (Outreach) at NSS. Freshly graduated from NUS Environmental Studies, she hopes to create meaningful spaces where anyone can discover and explore their interest in our environment. In her free time, she enjoys catching up with friends and exchanging life stories.



A Great Mormon butterfly feeding on the nectar of Ixora flowers.
Photo: Lee Ching Yong

Dances with the Great Mormon

A sudden drizzle during a butterfly walk in Pulau Ubin nearly brought the trip to an abrupt end, but it turned out to be a blessing in disguise, as the rain ushered in an unexpected winged wonder.

Text by SIMON CHAN

As our bumboat chugged across the calm seas towards Pulau Ubin, little did we know that Saturday, 17 May, would prove to be exceptional even for seasoned butterfly enthusiasts. The island renowned for its rustic charm and leisurely pace of life revealed even more of its captivating butterflies that day.

Over 26 participants comprising Nature Society Singapore members and a good number of public registrants, with their children and teens in tow, were in for a visual treat. On the way to Butterfly Hill, the usual suspects greeted us: Four native butterflies — the Painted Jezebels and all three species of the Emigrants (namely the Lemon, Mottled, and Orange), with a couple of Julia Heliconians (stunning, bright-orange South American longwing butterflies) were frolicking around a flowering patch.

Then came the first VIP of the day: a male Chocolate Albatross, followed by another two. This species is a rare seasonal migrant from Malaysia, appearing at times on our shores from the months of February to June. More VIPs were to follow: The unmistakable size and strong black-and-bright-yellow wings of the majestic Common Birdwing wowed the crowd.

Not wanting to be upstaged, our national butterfly, the endearing Common Rose — which wears the colours of our national flag on its wings — photobombed the group members who were trying to take pictures of the Common Birdwing.

At Butterfly Hill, hearts were set aflutter by the mesmerising mass flight of Orange Emigrants. Among them was a winged couple that was heeding our nation's call for "more babies" — they were accidentally discovered, mating in the shade, by a young participant, who mistook them for the "biggest Orange Emigrant" butterfly she had ever seen.

Spotted too at the summit were a lone Blue Spotted Crow and a shy Bamboo Tree Brown, both rarities in Singapore. There were also a handful of Blue Glassy Tigers and Dark Glassy Tigers, as well as a Plain Tiger. Unexpectedly, we also spotted the caterpillar of the Knight butterfly which is rarely seen. It had strange body embellishments, which it probably uses to scare away predators. The pupa of a Leopard butterfly — with its fascinating bejewelled exterior and darkened body on one side, indicating its imminent eclosure — also caught our attention.

As we descended Butterfly Hill, we spotted three fanciful creamy-yellow Blue Spotted Crow caterpillars feeding on a vine. Under the shade of a big tree, a Lesser Darkwing suddenly landed on a leaf, emboldening a Rustic to do likewise.

As we neared a marshy lake, we spotted a Plain Palm Dart feeding on the wild flowers of the *Bidens alba*. This species of butterfly is seldom encountered, as it usually flies at dawn and dusk. More interestingly, especially for local butterfly enthusiasts, was the appearance of a



The Great Mormon in Pulau Ubin did not seem to be afraid of people, allowing participants to get excellent close-up photos of the butterfly. Photo: Jane Moh



A Common Birdwing resting on the leaves of a branch. Photo: Lee Ching Yong



The fast-flying Coconut Skipper is rarely seen, let alone have its picture taken up close and personal. Photo: Lee Ching Yong



One participant mistook a mating pair of Orange Emigrants as the largest example she had seen of this species. Photo: Lee Ching Yong

It was an unforgettable day for all of us, an incredible treat of butterfly sightings, with a total of 38 species encountered.



The weird and wonderful caterpillar of the Knight butterfly. Photo: Lee Ching Yong



A Plain Palm Dart feeding on the wild flowers of the Shepherd's Needles (*Bidens alba*). Photo: Simon Chan



The caterpillar of the Blue Spotted Crow is completely different in colour from its adult form. Photo: Lee Ching Yong



The bejewelled pupa of the Leopard butterfly, a lucky find among the leaves. Photo: Lee Ching Yong

rather faded but rarely encountered Coconut Skipper. It was followed by a pristine Common Sailor puddling on the tarmac; it is usually mistaken for a Grey or a Short Banded Sailor.

It began to drizzle and this compelled us to return to the large sheltered area close to Pulau Ubin Village. This turned out to be a blessing in disguise: In a magical moment, a female Great Mormon appeared before us as soon as the rain stopped. The butterfly was feeding excitedly on the many Ixora flowers growing around the sheltered area. Our entire group went crazy and started shooting like the paparazzi!

The Great Mormon has been assessed as 'Vulnerable' in the Singapore Red Data Book (3rd Edition), which effectively means it is now locally threatened. The rare encounter reminded some of us of the moment when the Sioux people of North America acknowledged Lieutenant John Dunbar with the name "Dances with Wolves" in the titular movie — and so it was decided that our group shall be named, "Dances with the Great Mormon"!

It was an unforgettable day for all of us, an incredible treat of butterfly sightings, with a total of 38 species encountered. We fervently hope that all present, young and old, will continue to appreciate our small winged wonders and root for their conservation, always seeking to protect their green habitat in Pulau Ubin and elsewhere on mainland Singapore. 

UNCOVERING the SECRETS of BEETLES

A Conversation with
DR CHEONG LOONG FAH



Camptobrachys testaceipes
(Tenebrionidae, Darkling Beetles) has deeply impressed striae (stretch marks) on its elytra (hardened forewings). Beetles in this genus are wingless or brachypterous (very reduced wings).
Photo: KS Tan

A self-taught entomologist and discoverer of 16 new beetle species, Dr Cheong discusses his groundbreaking two-volume compendium on beetles and how his passion for insects developed over the course of a lifetime.

Text by VINITA RAMANI

Beetles are among the world's most diverse order of animals. About 400,000 species of beetles are known to science, and new species still described regularly. The largest family of beetles alone — Staphylinidae, or rove beetles — comprises over 63,000 species, with many more likely to be discovered.

So when Dr Cheong Loong Fah, a retired engineer and academic, decided to dive into the world of beetles, he knew he was in for a lifetime of work. However, the foundation for that devotion was laid early. As we sat down for a conversation about his research documenting beetles in Singapore, he shared how it all began.

“In the early days I was interested in bird watching. But after my kids were born, they taught me to look at small things. In a way insects are more accessible to kids. So we started to explore and learn about

what we encountered together,” he said. Army reservist stints led to more brushes with insects in jungles, which he hadn’t spotted as a full-time national serviceman.

That was when he noticed the



Dr Cheong and his colleague, Dr Ondrej Sausa, standing next to a Malaise trap, which is used to collect flying insects such as flies, bees, wasps, and ants, as well as some rather elusive beetles.
Photo: Cheong Loong Fah

BEETLES OF MANY SHAPES AND SIZES



Strongylium insigne (Tenebrionidae, Darkling Beetles). The genus *Strongylium* is one of the largest genera of Tenebrionidae, with over 1,400 described species. Members of this genus are notoriously challenging to identify. In Southeast Asia, five species of this group have been recorded. Photo: Nicky Bay



Lophyra fuliginosa (Cicindelidae, or Tiger Beetles) on a sandy shore. Photo: Nicky Bay



Hucus laetus is a member of the Anthribidae family. Species in this family feed on fungi or decaying plant matter. Photo: Cheong Loong Fah



Nessiodocus rostralis, a member of the Anthribidae family. Photo: Cheong Loong Fah



Acorynus bimaculatus, a member of the Anthribidae family. Photo: Cheong Loong Fah



Basides diversicornis (Tenebrionidae, Darkling Beetles). Males of the *Basides* species possess striking modifications on their heads, such as horns, blades, tubercles, or tooth-like projections. Photo: Nicky Bay



Eumorphus marginatus (Endomychidae, or Handsome Fungus Beetles) on fungi. Photo: Nicky Bay



The Exechesops wollastoni is a fungus weevil, and also a member of the Anthribidae family of beetles. Photo: Cheong Loong Fah

WHERE TO FIND BEETLES

To study beetles seriously, one needs to explore all kinds of major habitats such as forests, mangroves, grasslands, intertidal zones, as well as freshwater ponds and rivers. And then, there are the niche micro-habitats, which include all kinds of living trees, various parts of living flowers, fungi, as well as dead trees in various stages of decay. Many herbivorous beetles specialise in just one or a few host plant species, and these must be studied carefully when one is targeting particular groups of beetles.



The different parts of plants provide different micro-niches for beetles to thrive. Hispine leaf beetles of the genus *Anisodera* show a preference for *Zingiberale* plants, whose leafrolls provide them with shelter. Photo: Cheong Loong Fah



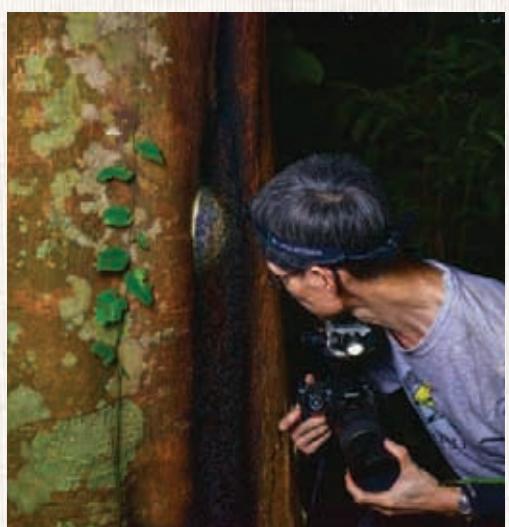
Beetles may also be found within beetle-pollinated flowers such as those of some *Sterculia* species. The floral morphology of these *Sterculia* flowers excludes other insect visitors with broad wingspans, such as moths. Photo: Cheong Loong Fah



A dead tree that remains standing can become an “arboreal megalopolis”, home to a rich variety of saproxylic fauna, ie, organisms that feed on decaying wood, either directly or indirectly. Photo: Cheong Loong Fah



Many other beetles inhabit the mid- and upper-tree canopy and are difficult to collect without the use of a sweeping net. Photo: Kenneth Chin



Dr Cheong is pictured here looking for beetles associated with the wounded parts of living trees. These are microhabitats of sap and slime that are often infected with bacteria, yeasts, and other microfungi. Photo: Cheong Loong Fah

gaps in knowledge. “I realised it was very hard to identify invertebrates. The literature is very scattered, and we don’t have a good reference collection in our local museum. So I became more involved in researching insects,” he said.

Dr Cheong kept abreast of research by the late Dennis Murphy, a renowned zoologist known for his work on Singapore’s mangroves. “He collected across all taxa, but he didn’t comprehensively collect beetles, because he said beetles (as a species) are so overwhelmingly rich, you can’t get a good handle on it.” Beetles came to represent unmapped terrain. “Like most academics, who like unexplored areas, I decided, why not start focusing on beetles! So I planted my flag there.”

That dedication has borne fruit in the form of a two-volume compendium documenting the beetles of Singapore. He has just completed the first volume, while the second is in the works.

The collection will focus on the “mega diverse families” mentioned earlier. Covering about 10 families across the two volumes, readers will discover 2,000 species. The first volume took six years to write, and the second will take just as long. Some of these massive families are simply too vast to document. “Eighty per cent of weevils are undescribed. In my collection, that means I can’t identify four out of five,” said Dr Cheong.

There is a measure of both humility and equanimity in how he speaks about the work. Dr Cheong has done plenty to “make the path easier” for those who come after him, but a great deal more has to be done and he is keenly aware time is running out. “I have to leave it to people after me to identify rove beetles and weevils.”

The volumes will be a boon for both beetles and citizen scientists. Citing how the interest in dragonflies grew in Singapore, Dr Cheong said: “Once we have a guide, people become much more interested. When we have new national records, documenting new species... people (will) know what they see.” He’s hoping for a similar excitement to foment in the nature community,

Dr Cheong on feelings of fear or disgust about insects in highly urbanised environments

“There’s an evolutionary basis to it, so it’s understandable. But it can be very irrational because it’s based on ignorance and the fear is disproportionate to the threat that beetles pose... Many are pollinators, or live in decaying plants or fruits, and pose no threat to us.”

for beetles. “If citizen scientists find a new species and send it to me, it’ll be a big help. Insects are becoming rare, so we need samples.”

When asked how young people keen on studying nature can start off, he pointed out that it has become easier to delve into this space. “There are so many tools available, compared to when I was doing research. There are online forums to ask questions of experts from around the world.” What he recommends is starting with what fuels that desire, whether it’s macro-photography or nature walks. “Get passionate about the subject first and see where it leads you,” he said.

He also hopes greater awareness will dispel misconceptions about insects as a whole, and beetles in particular. He addressed feelings of fear, or disgust about insects that tend to be more prevalent in highly urbanised environments like Singapore.

“There’s an evolutionary basis to it, so it’s understandable. But it can be very irrational because it’s based on ignorance and the fear is disproportionate to the threat that beetles pose. Another category of emotion is the sense of disgust. We think all flies are dirty, for example, but the majority are not. Many are pollinators, or live in decaying plants or fruits, and pose no threat to us.”

That kind of education is still much-needed. In Dr Cheong’s case, much of what he had learnt was

the result of making the time to pursue his passion while working as an engineer, starting a family and ensuring he had a stable income. The juggle clearly required patience and perseverance. But he brushes off the idea that he can be a role model for others. “I don’t think I’m a good example! After working in academia for more than 20 years, I could retire early without many financial worries. As an academic I was able to go to conferences and I could use that time to visit museums overseas. So these things are unique to my life.”

One thing is certain: Dr Cheong’s passion for beetles is palpable and will undoubtedly inspire others. “I have always had this fascination with natural history. So I knew I’d retire early. It was simply a question of “when”. It wasn’t a hard decision! It was just a matter of timing to come into this second calling of mine.”



The first volume of *A Guide to Beetles of Singapore* is set to be published in the first quarter of 2026. You can use the QR code to indicate your interest in purchasing a copy.



Vinita Ramani is a published author and a presentation/communication coach at Mandai Wildlife Reserve.

THE WILDLIFE OF ARCTIC ALASKA

Text and landscape photos by MORTEN STRANGE and BEE CHOO STRANGE

Animal photos by BEE CHOO STRANGE

In May-June 2025, the two of us visited the state of Alaska, USA, for a wildlife watching road trip and to visit old friends. Our last trip to the state together was in 2008, so it was time for a refresher course. This time, we did trips out of Fairbanks in the interior (a town with some 70,000 people). Before this year, Bee Choo had never been north of the Brooks Range, or to the Arctic region period, so our priority this time around was the high country north of the Arctic Circle and the tundra along the North Slope towards the Arctic Ocean.

In the north, the timing for a visit is crucial, as seasonal conditions change by the week, sometimes within a few days. As it turned out, spring was very late in 2025, so in early June, the Arctic had more snow and ice than we had anticipated. This made camping and walking off trail difficult to impossible. The ground was frozen and although the sun was out all day, the temperatures ranged between 0°C in the day and -7°C at night.

From Fairbanks, we flew up to Anaktuvuk Pass, and spent two nights there in the Gates of the Arctic National Park. We were lucky to find a room at the workers guesthouse in the village. After that, we drove from Fairbanks on the Dalton Highway to the end of the road at Deadhorse, at the Prudhoe Bay oilfields, 495 miles, or nearly 800 km, straight north.

The Dalton (or the North Slope Haul Road) was built in 1974 to service the oilfields around Prudhoe Bay and the Trans-Alaska Pipeline built subsequently in 1975-77; since its opening to the public in 1994, it had gradually become a tourist destination for adventurous eco tourists in cars, RVs and on motorcycles. Today

much of the road is paved, but there are still long sections of gravel and dirt.

Nevertheless, this is the type of Alaska trip that anyone can do. All you need to be is a fairly safe driver. The Dalton Highway is straight and wide and easy to drive in the summer — just watch out a bit for deep potholes and the occasional big rig coming at you at high speed. We switched to all-wheel-drive only twice, going across the 1,444m Atigun Pass in muddy, snowy and foggy conditions.

Two things draw us to Alaska: The enormous wide-open wilderness and sense of space, and also, the people, who are friendly, chatty and always helpful. In Alaska, you are free: Almost the whole state is public land and you can drive and stop and sleep wherever you want. You can hike anywhere, you can camp and build a fire if you want to; you don't need to follow a trail or ask for permission, and you don't have to tell anyone about your plans or take a guide. Where in Asia is this possible?

Wildlife-wise, the interior boreal forest belt is a bit quiet. Although hunting is strictly regulated, it is allowed in many areas and that makes what little wildlife there is somewhat skittish. Up north, however, the tundra habitat is amazing: The window is narrow, but during the breeding season from early June to early August, the

Above: As you drive north from the Yukon River along the Dalton Highway, following the Trans-Alaska Pipeline, you approach the Brooks Range foothills and exit the interior around Coldfoot; the Coldfoot landing strip is visible in the top of the picture. Only 12 people are permanent residents in the village, but there is a large camp servicing the truckers and tourists; this is the last place to buy petrol before Deadhorse, some 380 km farther north.

In Alaska, you are free: Almost the whole state is public land and you can drive and stop and sleep wherever you want... you don't need to follow a trail or ask for permission, and you don't have to tell anyone about your plans or take a guide.

open grasslands come alive with birds, mammals, and insects, and yes, in some places, with mosquitoes as well! For someone coming from Southeast Asia, where shorebirds and waterfowl are few and far between, seeing the thousands and thousands of ducks and geese and waders in the tundra is an astonishing and encouraging experience!

Northern Alaska

The three habitats covered by the authors:

- ① The interior forested lowlands
- ② The Brooks Range mountains
- ③ Tundra on the North Slope

— Authors' route



1 THE INTERIOR



● The boreal forest belt runs all across the interior of Alaska, here just south of Fairbanks; characterised by spruce and birch trees.



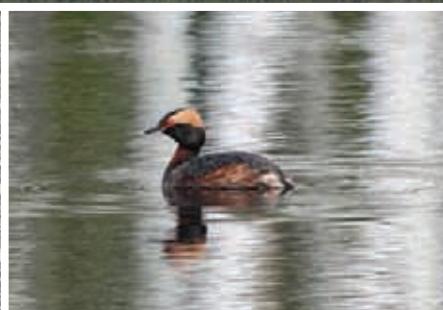
● The American Red Squirrel (*Tamiasciurus hudsonicus*) is common throughout the interior boreal forest; this one was crossing a trail in Fairbanks.



● The iconic American Robin (*Turdus migratorius*) can be found all over North America, except in the Arctic. In Alaska, it heralds the spring with its arrival in May.



● The interior is rich in vegetation that may hide surprises like this North American Porcupine (*Erethizon dorsatum*).



● Creamer's Field is a bird sanctuary in the northern outskirts of Fairbanks and we always go there during our visits. In 2025, we found this beautiful Horned Grebe (*P. auritus*) in a wooded pond inside the reserve.

2 THE BROOKS RANGE

- When you walk south out of Anaktuvuk village, the road is less than 1km long, and ends here where the waters flow south into the Pacific Ocean. This is the valley of John River, which will connect to the Yukon River later. Notice the prevalence of bushes and small shrubs here; the boreal forest proper starts gradually a bit further downstream to the left.



Anaktuvuk Pass is the only human settlement in the Brooks Range west of the Dalton Highway. It is considered the most isolated community in the US. There are no permanent roads into the village, and supplies are flown in by air. When we flew in on 1 June 2025, there was only one other passenger, a lady, with the two of us on board this Cessna 208 Caravan, coming in to land. Some 300 people live here, mainly Nunamiat inland Eskimos. While trophy hunting is not allowed in this part of the Brooks Range, the native Inupiat people are allowed to hunt Caribou for subsistence. In autumn, thousands of Caribou migrate south across the pass.



A number of shorebirds had arrived at Anaktuvuk Pass while we were there, to either breed or continue their migration to the North Slope through the pass; this is a Semipalmated Plover (*Charadrius semipalmatus*).



In Anaktuvuk Pass, almost every structure has a pair of Arctic Ground Squirrels (*Urocitellus parryii*) living under it or nearby. This individual was about a metre away from us, trying to make himself invisible on the trail!



Snowshoe Hares (*Lepus americanus*) are everywhere in Anaktuvuk Pass, feeding on the open patches of vegetation between the houses. At this time of year, their fur changes from snow white to greyish brown.

3 THE NORTH SLOPE



- In the interior of Alaska, big mammals are few and far between. But this changes as soon as you get to the North Slope. We were not even out of the northern Brooks Range foothills, when Caribou (*Rangifer tarandus*) started emerging. They soon numbered in the hundreds!



- The story of the Red Fox (*Vulpes vulpes*) versus the Arctic Fox (*V. lagopus*) is a classic ecological tale of a widespread and adaptable generalist squeezing out a low-density specialist. Wherever their ranges overlap, the Arctic Fox is losing ground, a situation that is possibly exacerbated by climate change. In Scandinavia, Siberia, and on the North Slope of Alaska, the Red Fox (above, left) is expanding into Arctic Fox (above, right) territory, replacing and sometimes killing off the smaller species. Reports of Arctic Foxes south of the Brooks Range are not correct, and originate instead from sightings of pale Red Fox (above, centre) individuals. Arctic Foxes have a white coat in winter, which changes to dark grey in summer. So, it was nice to see several 'real' Arctic Foxes on the snow-covered tundra just before and around Deadhorse.



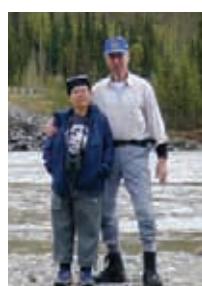
- The Muskox (*Ovibos moschatus*) is one of the success stories of Arctic wildlife conservation. The Alaskan population was decimated once firearms reached the Arctic coastline in the early 1800s. In 1865, two years before the Americans bought the territory from Russia, the last 13 animals were shot. Then in 1930, the US purchased 34 Muskox from Greenland, and a reintroduction programme has since successfully established new populations on the North Slope and west coast of Alaska.

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Many illustrated field guides cover the birds of North America, but we used:
Armstrong, Robert H. (1995). *Guide to the Birds of Alaska*. Fourth Edition. Portland, Oregon: Alaska Northwest Books.

For mammals, we used: Smith, Dave. (1995). *Alaska's Mammals*. Portland, Oregon: Alaska Northwest Books.

<https://www.uaf.edu/toolik/edc/guides/> by the Toolik Field Station Environmental Data Centre has amazing illustrated guides to all birds, mammals and plants of the Alaska North Slope region.



Morten Strange is a retired petroleum engineer, retired nature photographer, retired publisher and former Editor-in-chief of *Nature Watch*; member of NSS since 1984, now life member. Check mortonstrange.com for details.
Bee Choo Strange is a long-time NSS (now life-) member, sole proprietor of Wild Vigil Network and also active in international hornbill conservation.

Prof Avadhani arrived in Singapore as a stranger, but built a lasting reputation as an unflappable botanist who worked hard to bring people together around a common cause. We take a look back on his life, in celebration of his legacy.



PROFESSOR P. N. AVADHANI

1932-2025

A natural diplomat, respected by all

Text by JOHN YIP

Professor P. N. Avadhani was born in 1932, in the small town of Chirala in Andhra Pradesh, India. Despite an early interest in medicine and chemistry, he chose to study botany and specialised in plant physiology rather than taxonomy. “I was more interested in the ‘why’ of things, rather than the ‘what’,” he said in his oral-history interview recorded by National Archives Singapore in 2018.

Prof Avadhani was pursuing a postdoctoral fellowship in Canada when he noticed an advertisement in the *Nature* journal for a botany lecturer at the University of Malaya in Singapore. He applied for it on

a whim but, to his surprise, he received a letter two weeks later appointing him to the position.

“I knew nothing about Singapore! Absolutely nothing,” he recalled. So he wrote to the British High Commissioner in Ottawa to request information about the colony. They helpfully sent him a large file, but to his amusement, it contained “useless information”, such as where to hire a gardener or a maid, what was in stock at Robinsons, and the price of bacon.

In any case, he packed his bags and arrived in Singapore with his wife in May 1960, and he was immediately awestruck by the lush greenery. “My wife said, ‘You don’t need a botanic garden here. Just put

a fence around any area and it becomes a botanic garden!’ I was really impressed.”

As a botany lecturer at the University of Malaya, it was almost inevitable that Prof Avadhani would become a member of the Malayan Nature Society (Singapore Branch) (MNS-S), as Nature Society Singapore (NSS) was then known. Sure enough, he was roped in to become the treasurer within months of his arrival, and he stayed involved for decades afterwards in various capacities, including as chairman of MNS-S, and as vice-president of the Malayan Nature Society (MNS).

“At the time, there were only two branches [in MNS]: Selangor

Professor P. N. Avadhani will be fondly remembered as a plant physiologist, an educator, a conservationist, and most of all, as a friend. He enjoyed taking field trips with fellow nature lovers, and helped maintain the warm ties between the Nature Societies of Singapore and Malaysia. His oral account of the intertwined histories of the two Societies is preserved in the National Archives of Singapore, and was referenced for this tribute article. Photos: (above, first two from left) P. N. Avadhani; (third and fourth from left) Leong Kwok Peng

and Singapore. Sometimes, there would be cross letters going back and forth,” Prof Avadhani said in his oral-history interview.

“As the chairman of the Singapore Branch, I used to go to the council meetings. My approach was always: How to find common ground? We used to discuss, ‘Look, what is this argument about? We’re all working for the same cause.’”

It was his knack for being the soothing voice of reason that made Prof Avadhani very effective at these meetings, as recalled by Tan Sri Dr Salleh Mohd Nor, the former president of MNS. “Dhani was my ‘bridge’ with and to the branches as he was a highly respected person, senior in stature and age. He literally visited every MNS Branch and talked to the Branch chairmen and committee members, as well as the members at large. Dhani resolved a number of issues and problems, and his presence and leadership made solving these issues much easier.”

For his part, Prof Avadhani felt he could say “with a little bit of pride” that NSS has had a reasonable impact on local conservation over the years. “The Society had done this in such a way that we were quite reasonable in our protestations, and there was equally sufficient background in

“Be humble. Learn the most you can, and disperse your knowledge as best as you can. Be a part of the community.

A country is not the land itself – a country is its people. So, reduce your selfishness a little bit; help others a bit more. That’s what I would like to say.”



NSS donated the minutes of MNS-S meetings, several of them chaired by Prof Avadhani, to National Library Singapore.

Photo: Leong Kwok Peng

scientific knowledge put into all our suggestions.” This, he believed, was key to the progressive change in the government’s view of nature conservation over the years.

Prof Avadhani eventually stepped down as vice-president of MNS in the early 1990s, after some 40 years of involvement with the Society. In recognition of his many contributions, he was then appointed the ambassador-at-large. “This meant that Dhani was free to travel to any MNS branch and talk to them,” said Dr Salleh. “Oftentimes, he covered his own expenses as well, and seldom claimed them from MNS. He was very effective and highly respected because of his boundless knowledge and diplomacy. He never lost his temper even when provoked.”

Unsurprisingly, Prof Avadhani and Dr Salleh were also close friends. “He was my adviser, my mentor, and a family friend,” said Dr Salleh. “We used to spend long hours at his hotel room talking over many national and MNS issues. He and his wife, Pavi, spent many evenings together at meals with my family in Kuala Lumpur. I will always cherish these memories.”

Prof Avadhani passed away in August 2025. In his oral-history interview by the National Archives, he summed up his message to future generations in three words: Learn, involve, participate. “Be humble. Learn the most you can, and disperse your knowledge as best as you can. Be a part of the community. A country is not the land itself – a country is its people. So, reduce your selfishness a little bit; help others a bit more. That’s what I would like to say.”

Professor P. N. Avadhani’s quotes were taken with permission from his oral-history interview (accession number 004321, tracks 1 to 4) with the Oral History Centre at the National Archives of Singapore. We would also like to thank Tan Sri Dr Salleh Mohd Nor for sharing his stories of Prof Avadhani.



Prof Avadhani and past NSS president Shawn Lum at the gala dinner to celebrate the Society’s 70th anniversary in 2024.

Photo: Shawn Lum



John Yip is a Senior Executive of the NSS Every Singaporean a Naturalist (ESN) programme. He joined NSS in 2025, after a long career in print and broadcast journalism, and is currently the editor of the *Nature Watch* magazine. He enjoys hiking and cycling, and outdoor adventures.

Snapshots of Past NSS Events



Swallowtail butterfly walk at Singapore Botanic Gardens, 6 Jul: Organised as part of the lead-up to the 2nd Swallowtail Butterfly Race, the participants spotted as many as 15 species of butterflies, including the Common Rose, the Common Birdwing, and the Common Yeoman. Photo: Steven Chong



Swallowtail walk at Pulau Ubin, 26 Jul: Dr Anuj Jain and Ms Lena Chow of the Bird & Insect Group took 20 participants on a walk around the island. The sunny weather brought out a delightful variety of butterflies, including the Common Rose, the Common Birdwing, and the Common Mormon. Photo: Cherrie Toh



Birdwatching at Jurong Lake Gardens, 13 Jul: A total of 21 participants observed 35 species of birds, including the Oriental Pied Hornbill, Pied Imperial Pigeon, Red-breasted Parakeet, Red-whiskered Bulbul, and Sunda Pygmy Woodpecker. Photo: Alyce Ang



Woodlands N1 forest exploration, 30 Jul: A total of 20 participants visited this forest that will be partially cleared for upcoming development. They enjoyed the opportunity to learn more about the habitat and its wild residents. Photo: Shreeyaa Subra



Tree walk at Pulau Ubin, 3 Aug: Mr Liang (centre), who grew up on the island, took participants around to share his personal stories about Ubin's flora and its residents, providing a unique insight into how the island provided for the community. Photo: Shreeyaa Subra



Forest bathing at Singapore Botanic Gardens, 16 Aug: Led by Ms Cynthia Wan, participants enjoyed tea and engaged in a series of relaxation and nature-connection activities, including creating art with natural materials. Photo: Cynthia Wan



Join us!

We organise a variety of events that are open to NSS members and the public, from educational talks to birdwatching and rewilding activities. You can go to nss.org.sg/events for more information.



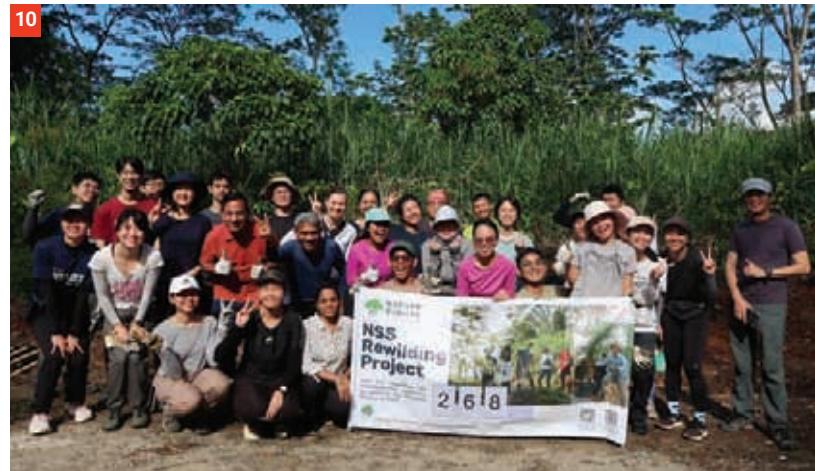
Coastal forest walk at Sentosa, 23 Aug: Participants took a walk along the Imbiah Trail, and learnt why it is important to preserve even small patches of mature secondary forest, as they could contain interesting species, like the majestic Pulai tree. Photo: Lynn Ong



Butterfly walk at Woodlands Botanical Garden, 30 Aug: It started as a cloudy day, but the sun soon emerged, allowing participants to discover as many as 20 species of butterflies, including the Lime butterfly and the Blue Glassy Tiger, as well as the Common Rose, and the Common Mormon. Photo: Shreeyaa Subra



From Footage to Frequencies, 3 Sep: Prayitno Goenarto (left), a biologist working in the tropical forests of Indonesia, shared his latest findings on the enigmatic Black Partridge. Mr Prayitno is one of the few lucky individuals to have encountered the species in the wild, and he shared clips of its vocalisations. Photo: Shreeyaa Subra



Rewilding at Rail Corridor (North), 6 Sep: A total of 27 volunteers planted 50 trees today. Thankfully, the weather was fair and partly cloudy, and there was even a potential sighting of a White-bellied Sea Eagle. Photo: Cherrie Toh



Rewilding and site maintenance at Rail Corridor (North), 20 Sep: The sun was blazing hot, but that did not deter the volunteers who worked in two groups to apply mulch to the newly planted saplings and cut back the encroaching elephant grass. Photo: John Yip



Wild Growth Woodlands of Singapore, 20 Sep: Tony O'Dempsey, aka "Uncle Tony", delivered a talk on the growth and composition of Singapore's regenerating woodlands, as part of the lead-up to this year's Singapore Bird Race, which is themed around woodland birds. Photo: Joseph Lim

Shining a Spotlight on Our Volunteers

Our volunteers are at the heart of our outreach and conservation efforts, devoting their time and energy towards the building of a robust nature community, and safeguarding Singapore's natural heritage. We feature one such volunteer who's been making a difference.

Text by JOHN YIP



NSS Nature Ambassador Phyllis Koh (right) with NSS Senior Executive (Outreach) Shreyaa Subra at an outreach booth.

“**M**any of us know instinctively that the sight of greenery, the sound of flowing water, and the scent of earth have a way of calming us, reminding us that we belong to something greater than our busy lives. But in Singapore, where air-conditioned spaces often feel more inviting than the humid outdoors, encouraging connection with nature requires both creativity and intention,” says Phyllis Koh, 53, a Nature Ambassador for NSS.

Ms Koh is a volunteer with NParks and the NUS Alumni Society Sustainability Chapter, and so it was natural for her to also become an NSS volunteer in 2024. As a Nature Ambassador, Ms Koh helps out at our outreach booths during events, engaging visitors who are interested to learn more about local biodiver-

sity. “Each experience as a Nature Ambassador holds a unique place in my heart,” she says. “Every conversation I have with a new participant carries the same essence: spreading love for the planet, for nature, and for well-being.

“What stays with me most deeply is the feeling of being among kindred spirits, people who share the same love and respect for Earth. That sense of connection goes far beyond joy — it’s the sense of fulfilment that comes from living with purpose and meaning.”

Ms Koh is a forest-bathing guide and forest-therapy practitioner by profession, so nature-connection activities for her are very much about getting participants to immerse themselves in the moment within a park, garden, or forest. “They learn how to let their senses guide themselves,” she says.

“By intentionally engaging with nature, even in small ways, we not only care for our own well-being, but also for the flourishing of the planet.

She also teaches participants about “intentional empathy”, where she gets them to observe any creature that captures their attention, be it a monitor lizard, a butterfly, a sunbird, or even an ant carrying food. “They observe its movements and notice its purpose. This helps to open their hearts to compassion, a quality that strengthens our bond with the natural world,” she says.

“By intentionally engaging with nature, even in small ways, we not only care for our own well-being, but also for the flourishing of the planet. When we feel this connection, we are more likely to live sustainably, and protect the ecosystems that sustain us.”

Phyllis Koh

NSS Nature Ambassador



VISION To be Singapore's leading advocate of biodiversity and habitats.

MISSION With our evidence-based approach and partnerships with agencies, peers, and corporates, we lead habitat and biodiversity conservation in Singapore and with partners in the region. Through engagement, education, advocacy, and research, we inspire and enable people to take action towards a sustainable and biodiverse planet.

Why Join NSS?

Nature Society Singapore or NSS is dedicated to the study, conservation and enjoyment of the biodiversity and natural heritage of Singapore, our neighbouring countries and the wider world. The Society is a non-profit, non-government organisation. Our members work with commitment and altruism to conserve Singapore's remaining nature areas such as forests, mangroves, wetlands and reefs.

NSS was formerly known as the Singapore Branch of the Malayan Nature Society (MNS), formed in 1954. In 1991, we became independent as Nature Society Singapore. Both NSS and MNS continue to maintain strong links with each other.

NSS organises guided nature walks, horseshoe crab rescues, nature surveys, clean-ups, talks, exhibitions, and overseas nature trips. Going on an NSS outing allows you to meet people from all walks of life with a common passion!

Join NSS Today & Receive *Nature Watch* for Free!

The values that NSS upholds are a bulwark against the excesses of an ultra-materialistic society. If you too feel that protecting our biodiversity and natural heritage are important, join NSS today and support the Society in our work. Members will receive four issues of *Nature Watch* (NSS quarterly magazine) and a regular e-newsletter for free. Members also get to participate in fascinating nature-based activities and events which enable one to forge friendships with fellow nature lovers.

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How to Join NSS

To join as a NSS member, please fill in this form <http://tinyurl.com/NSSmembershipform>. It allows you to settle the membership fees within the link. Once your membership is approved by the Executive Committee, you will receive *Nature Watch* and the e-newsletter for free, as well as be able to attend all member-only events.

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1. To join as a NSS volunteer, please fill in this form <http://tinyurl.com/NSSvolunteerform>.
2. To apply for internship, please fill in this form <https://tinyurl.com/NSSinternshipform>.

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1. Payment for donations and memberships can be made by PayNow or PayLah! by scanning the QR code or doing a PayNow transfer to Nature Society Singapore's **Unique Entity Number (UEN) S61SS0142H**. Please enter your name, contact number or email address in the UEN/Bill Reference Number.

2. Fund transfers can also be made to Nature Society Singapore's **DBS Bank Current Account Number 0339023574**.
3. For other modes of payment, please get in touch with us via email: contact@nss.org.sg.
4. We also welcome individual and corporate donations to the Society. Please inform us via email (contact@nss.org.sg) of the amount you wish to donate, along with your name, title or organisation. Donations may be made by the payment methods mentioned above. Your generosity is much appreciated. Donations are tax exempt.



Let Singapore's Abundant Biodiversity Be Your Legacy

Have you loved nature all your life? Please consider helping our conservation work with a gift to Nature Society Singapore in your will.

How to make a gift to the Society in your will

You can choose to inform us if you have considered us in your will, but it is not strictly necessary. Please ensure that your solicitor writes in the full name of the Society. We suggest below suitable forms of words that can appear in your will:

*I give to Nature Society Singapore
(hereinafter called NSS), **Unique Entity**
Number S61SS0142H, _____ % of the
residue of my estate*

OR

a specific gift of _____

*and I direct that (i) the proceeds may be
used for the general purposes of NSS and
(ii) a receipt signed by a person for the
time being authorised by the Executive
Committee of NSS shall be a good and
sufficient discharge to my executors.*



**NATURE
SOCIETY
SINGAPORE**



NSS works to
protect future
habitats for animals
in Singapore, such
as the critically
endangered
Raffles' Banded
Langur (*Presbytis*
femoralis).
Only around 70
individuals
remain here.
Photo: Andie Ang.