



**OUR CONSERVATION STORY**

# Pulau Ubin

by Nature Society Singapore

## Etymology

The name Pulau Ubin literally means "Granite Island" in Malay, which explains the many abandoned granite quarries there. Pulau means "island", and Ubin is said to be a Javanese term for "squared stone". Ubin was first discovered to contain granite by British, who then started to build quarries to get the granite for construction industry in Singapore.



1873 map of Pulau Ubin (Source: <https://libmaps.nus.edu.sg/>)

## URA Concept Plans

In the 1958 Master Plan, Pulau Ubin was designated for "Mineral Workings" and "Fisheries Reserves" uses. The status was changed to "Rural" and "Unplanned" in the 1977 and 1980 Master Plan respectively.

In URA's Revised Concept Plan 1991, the island was earmarked to have one housing estate, two industrial parks, and connected to the main island via MRT.



Pulau Ubin in the 1991 Concept Plan. Green being 'open space'; purple being 'industry'; red being 'high density housing'; beige being 'low/medium density housing'; blue lines indicate MRT line (Source: <https://www.ura.gov.sg/Corporate/Planning/Long-Term-Plan-Review/Past-Long-Term-Plans>)

## In the News

On 5 February 1991, The Straits Times reported that just a month before the release of the Concept Plan, the Malayan Nature Society Singapore Branch (MNSSB) released the Master Plan for Conservation of Nature in Singapore and highlighted that Pulau Ubin had been highlighted as one of the eleven high-priority areas to be conserved. With regards to setting up an Outward Bound School (OBS) in Pulau Ubin, Dr Ho Hua Chew mentioned that “conservation is more effective if the wilderness is managed rather than neglected by man... Management ensures that activities do not upset the eco-balance on the island.”



The Straits Times, 5 February 1991 (Source: NewspaperSG)

On 12 January 1992, the Ministry of National Development (MND) also announced that reclamation work would happen in the next five years to link Pulau Ubin to Pulau Tekong via a bridge. It was also announced that housing, light industry and MRT would be built when Singapore's population exceeds four million people.

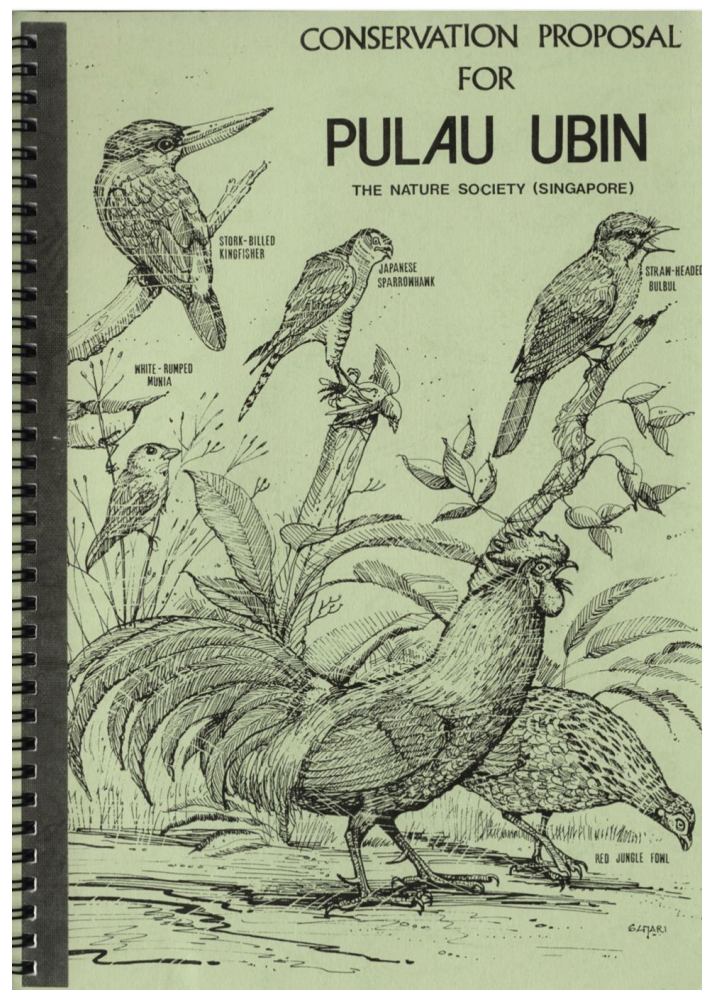


The Straits Times, 12 January 1992 (Source: NewspaperSG)

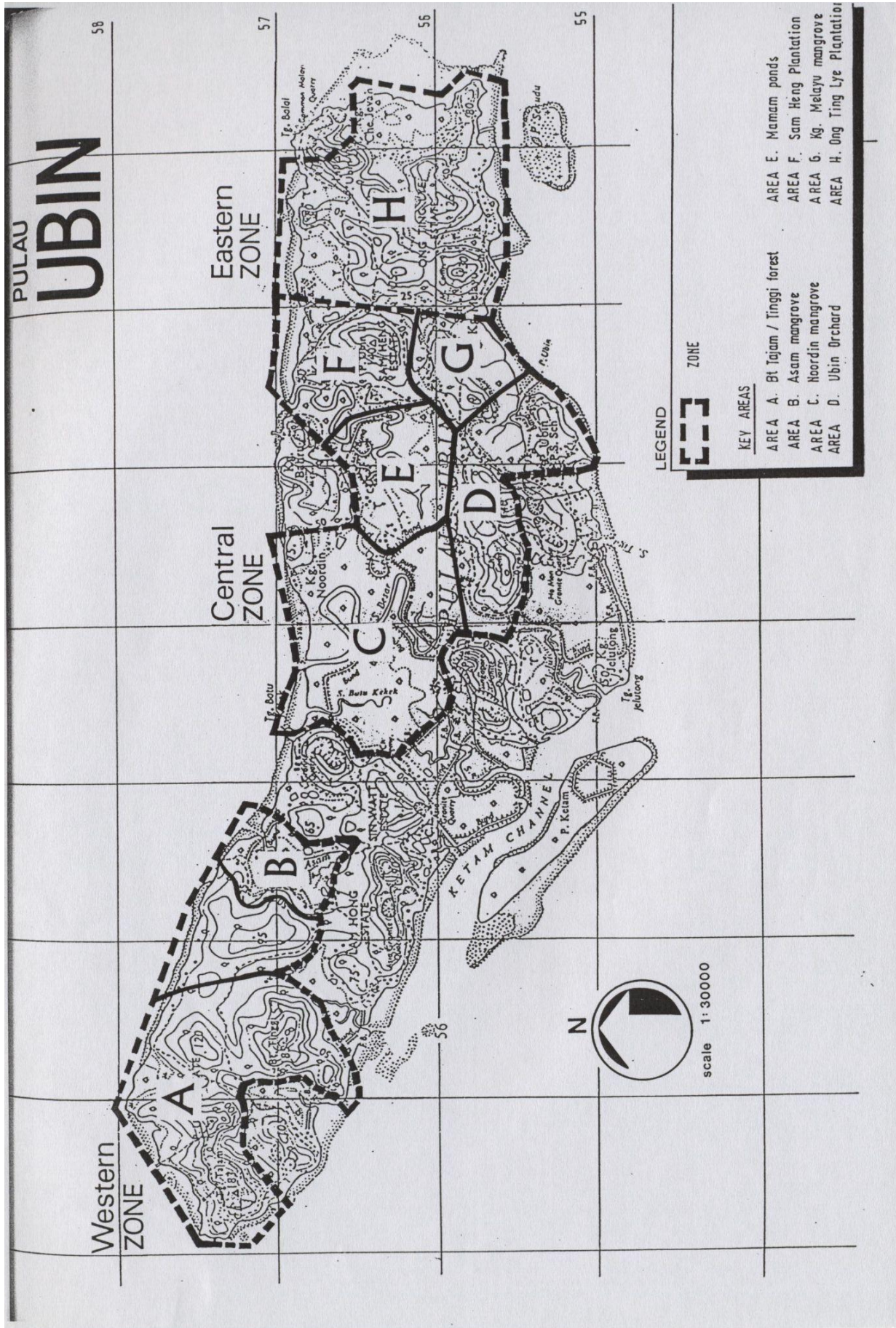
## The Conservation Proposal

Following the release of concept plan in 1992, the Conservation Proposal was put up to highlight the biodiversity found in Pulau Ubin. It highlighted one of the few most extensive and viable populations of mangroves were found in the survey.

There were also some 141 species of birds found in Pulau Ubin. Of which, it holds the only viable population of Red-jungle fowls and Straw-headed bulbul (Vulnerable in IUCN Red List 1988) in Singapore. Bukit Tajam was believed to hold the largest population to the then-endangered Red Jungle Fowls in Singapore. SHB is critically endangered and Singapore being one of main stronghold for this species. At the point of writing, there was also no known breeding pairs outside of Pulau Ubin. Other species highlighted include Common Goldenback, Laced Woodpecker and Civet cats. Birds like Mangrove Pitta, which was then-extinct in main island was also sighted in the mangroves of Ubin.



Conservation Proposal published in 1992, written by Lim Kim Keang, in consultation with Clive Briffett, Richard Hale, Goh Si Guim, Ho Hua Chew, Evelyn Lim-Eng, Lim Kim Seng, Ng Bee Choo, Peter Ng, R. Subharaj, Sutari bin Supari, Wee Yeow Chin, Sunny Yeo, illustrated by Sutari bin Supari, photos from Morten Strange & Ho Hua Chew (Source: Nature Society Singapore)



It was also proposed to have a wildlife sanctuary at Bukit Tajam and Bukit Tinggi (west of the island), a nature-cum-cultural park in the central zone, and a special interest area in the east. The proposal also pushed for an 'ecologically-oriented development' in the Masterplan. It highlighted threats to wildlife in Ubin such as open fires, poaching, unsuitable outdoor activities, introduction of invasive species and motor vehicles. It also called for Pulau Ubin to be managed by Nparks or a nature conservation board.

3. It is recommended that the island be incorporated into a National Park System under the management of an expanded National Parks Board or a Nature Conservation Board.

4. Selective planting of indigenous flora that provide flowers and fruits attractive to birds and mammals eg. squirrels should be systematically implemented.

5. Limitations should be set on removal of overgrown vegetation. The importance of tall vegetation as nesting sites and refuge for birds normally associated with shrubs must be considered. There should be no overzealous pruning and removal of withered leaves and plants. As far as possible intensive management should be avoided.

Snippet from the Conservation Proposal for Pulau Ubin (Source: Nature Society Singapore)

On 15 March 1992, The Straits Times featured the Conservation Proposal to highlight key messages in the proposal.



The Straits Times, 15 March 1992  
(Source: NewspaperSG)

## Recycling Project

In 1993, Nature Society (Singapore) initiated a recycling project which was, unfortunately, aborted due to contractor issues.



### **Recycling project at Pulau Ubin aborted**

The Straits Times, 17 March 1993 (Source: NewspaperSG)

The project was later picked up by National Youth Achievement Award Council (NYAAC) and National Council on the Environment (NCE) to work on long-term public education effort to return Ubin to its clean and green state. At the same time, NSS also undertook a survey to collect data of the wildlife and vegetation of Ubin.



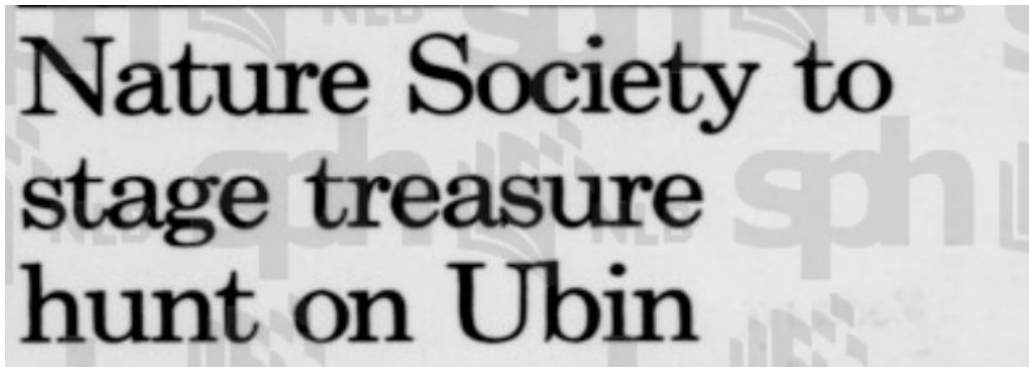
### **3-year project to clean up Ubin will be launched**

Education effort aimed at young people

The Straits Times, 8 October 1993 (Source: NewspaperSG)

## Other Engagements

In 1994, NSS organised a treasure hunt in Ubin to raise funds to convert the former Bin Kiang school to a centre for environment education and showcasing cultural history of the island.



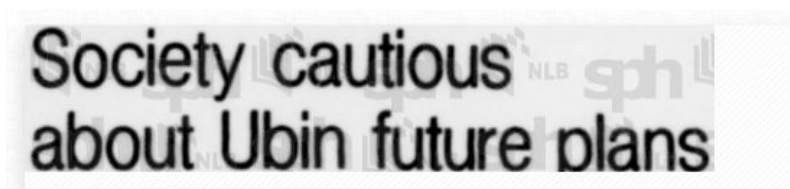
The Straits Times, 15 March 1992 (Source: NewspaperSG)

In 1995, Parks and Recreation Board (PRD) announced plans to develop Pulau Ubin and that it “has to be handled sensitively to preserve the combination of man-made and natural habitats”. This include infrastructure facilities, campsites, and public parks.



The Straits Times, 17 September 1995 (Source: NewspaperSG)

NSS responded with an agreement to PRD’s plans but cautioned about the future plans for development and expressed concerned if there was a plan for all phases of development. NSS also expressed concerns that Ubin had not been earmarked for conservation.



The Straits Times, 17 September 1995 (Source: NewspaperSG)



## First Nature Guide for Pulau Ubin

In 1992, NSS also became the first to publish a nature guide for Pulau Ubin, to highlight species found in Pulau Ubin.



A Guide to Pulau Ubin (Source: Nature Society Singapore)

## Chek Jawa in 2001

In 2001, URA released the draft concept plan, suggesting that a bridge would be built from mainland to Pulau Ubin and to Pulau Tekong. It also suggested a reclamation area on the east coast of Pulau Ubin where the Tanjong Chek Jawa mudflats lie.



Part of the 2001 Concept Plan draft (Source: URA)

A letter was written by then NSS President, Dr Geh Min to The Straits Times Forum on 16 Jul 2001. She mentioned about the rich biodiversity on natural beaches, which the man-made beaches lacked. She described Tanjong Chek Jawa was “like a gift from heaven”. She urged the Government to consider the incorporating Tanjong Chek Jawa as part of the plans for education, life sciences research and ecotourism.

*ST Forum  
16/7/01* **Chek Jawa's natural beach should be preserved**

The Straits Times, 16 July 2001 (Source: NewspaperSG)

She was subsequently advised to join closed-door discussions as part of her negotiation for Chek Jawa and not challenge the authorities publicly. She heeded the advice but NSS continued with the work on public education and engagement and published on Nature Watch regarding Chek Jawa.



**9 SUNDAY: Coastal walk at Tanjong Chek Jawa** with Shawn Lum. The duration of this walk is from 8.00 am to 12.00 pm. Please refer to box story on Tanjong Chek Jawa for details.

**12 WEDNESDAY: Slidetalk “Pulau Ubin-Treasure Island”** by Dr Chua Ee Kiam. Pulau Ubin is one of the last strongholds of our local heritage—laid-back kampung and traditional Chinese village scenes evoke memories of a less hectic era in Singapore’s history. The island is a miniature paradise of biological diversity; where sea eagles soar over coasts and wild pigs and jungle fowl still rule the forest. But developments are fast changing the island. Many villagers have resettled on the mainland; leaving for the comforts of modernization. Some are still staying put, eagerly savouring every moment before they too are uprooted. Nature areas are likewise targeted for development. Tanjong Chek Jawa will sadly be lost to land reclamation. Ee Kiam will show the beauty and rustic charm of Ubin, the flora & fauna, and talk about the changes on the island.

### AT A GLANCE

When	What	Closing date
Sep 2	Birdwatching at Panti Bunker Trail	
9	Coastal Walk at Tanjong Chek Jawa	
12	Slidetalk -- “Pulau Ubin - Treasure Island”	
15	Plant Walk at Mount Faber	
16	Birdwatching at Pulau Ubin	
16	Urban butterfly Walk at Fort Canning Park	
16	Coastal Walk at Tanjong Chek Jawa	
22	Fig Walk at Dempsey Road	
23	Birdwatching at Sungei Buloh Nature Park	
23	Butterfly walk at Botanic Garden	
23	Coastal Walk at Tanjong Chek Jawa	
26	Slidetalk on Tanjong Chek Jawa's Marine Treasures	
30	Revisiting Vanishing Bidadari	
30	Workshop on Bird Census Techniques	24 Sep
Oct 3	Slidetalk on Operation Tacti	
7	Birdwatching at Sime Fore	
10	Slidetalk on Madagascar	
13-14	18th Singapore Bird Race	
20	Butterfly walk at Bukit Tim	
20	Coastal Walk at Tanjong C	
21	Coastal Walk at Tanjong C	
24	Slidetalk on Wildlife View	
28	Plant Walk at MacRitchie	
Nov 3	Coastal Walk at Tanjong C	
4	Coastal Walk at Tanjong C	

### Chek Jawa calendar 2002

Looking for an attractive calendar for 2002? The Education Group in collaboration with the Marine Parade Community Development Council and kids from the Yishun Students Care Service will be selling their self-designed 2002 calendar featuring the flora and fauna of Tanjong Chek Jawa from mid-November onwards. To find out more, email Vilma D’Rozario at vdrosa@nie.edu.sg or Clifford Lim of the Marine Parade CDC at Clifford\_LIM@pa.gov.sg

Snippets of Nature News from 2021 to 2022 to publicise walks on Tanjong Chek Jawa (Source: Nature Society Singapore)

## Sea Grass Translocation

After the announcement of the Concept Plan in April 2001, NSS' Marine Conservation Group (MCG) did a survey on the sea grass species in Tanjong Chek Jawa in May 2001. With the results, and after obtaining sponsorship, MCG initiated to translocate sea grass from Tanjong Chek Jawa to a reclaimed stretch of beach adjacent to Tanah Merah Ferry Terminal across June to July 2001.

After a few months, a survey at Tanah Merah site showed that at least 50 percent of the sea grass remained intact and were growing.

### REPORTS

## Tanjong Chek Jawa Translocation

**THE** wheels of the experimental sea grass translocation project were set in motion when the NSS Marine Conservation Group became aware in late April 2001 of the imminent loss of Chek Jawa on the eastern coast of Pulau Ubin.

This area has a rich mud and sand flat marine ecosystem, including abundant sea grass beds. Unfortunately, this unique ecosystem has been slated for land reclamation which may begin before the end of this year. Though Chek Jawa is not a coral reef ecosystem, it still teems with seashore marine life such as sea grass, horseshoe crabs, starfish, anemones, sea cucumbers, sponges, sea pens and sand dollars, all now rare on mainland Singapore. There are many possibilities for education and research if Chek Jawa is turned into a park or reserve. It is also invaluable as an "outdoor classroom" for students and the layperson.

The objective was to re-establish the sea grass habitat at another location with suitable conditions, in the hope that marine life normally associated with sea grass will naturally establish themselves over time. To encourage this, some marine fauna would also be transplanted.

A survey made at Chek Jawa in early May indicated that the following sea grass species: *Halophila spinulosa*, *Halophila ovalis*, *Halophila minor*, *Cymodocea rotundata* and *Enhalus acoroides*, and other marine life could be moved. Research and investigation indicated that the

beaches around Ubin are generally too steep and/or muddy for sea grass to grow. Further enquiries pointed the MCG to a recently reclaimed stretch of beach adjacent to the Tanah Merah Ferry Terminal as a possible transplant site.

Mr William Lai, CEO of Ponggol Marina and Ubin Lagoon Resort allowed the beach fronting Ubin Lagoon Resort for use as a translocation site for sea grass. He also generously provided the use of two boats and free lodging at the resort for the volunteers. The exercise was carried out in two phases: from June 22 to 24 at Ubin Lagoon Resort, and at the Tanah Merah site from July 22 to 24.

Inspection of the Tanah Merah site a few months later showed that at least 50 per cent of the sea grass remained intact and exhibiting new growth. These initial signs are encouraging. Monitoring will continue at both sites.

We would like to give a big thank you to all the volunteers, the YMCA, Mr William Lai and his staff, and all the others who have contributed in one way or another to this experimental project.

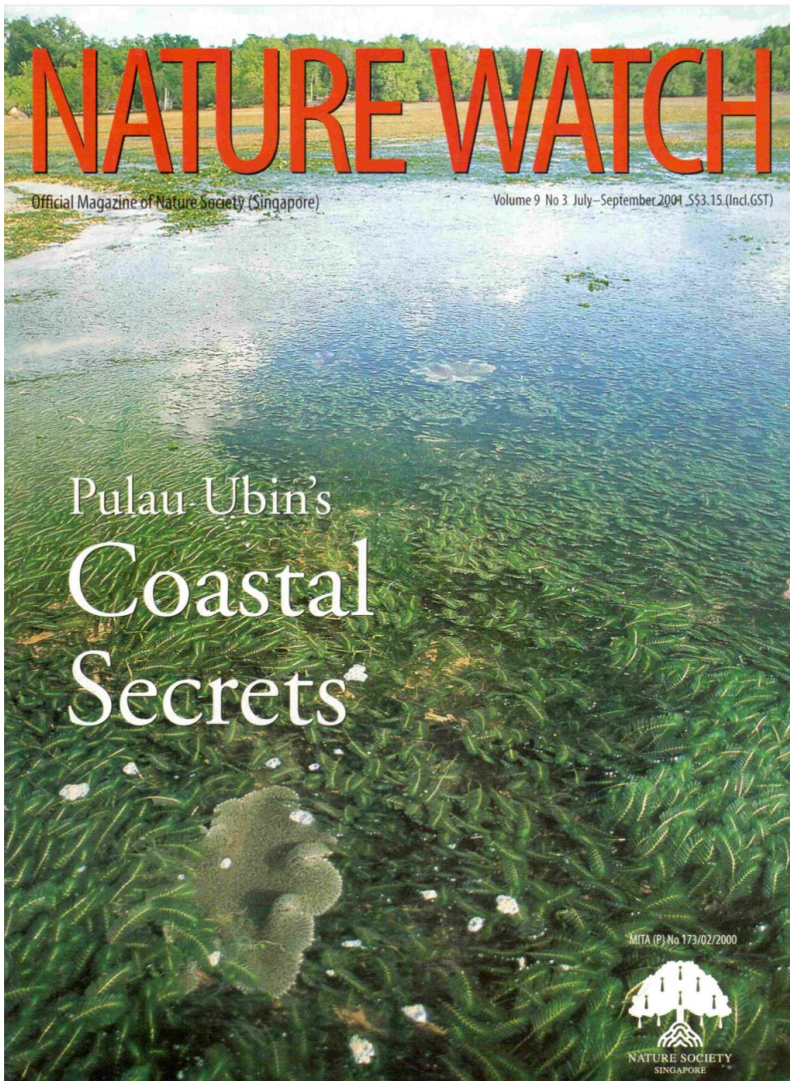
— by Victor Tan, Project Leader,  
Chek Jawa sea grass translocation

■ **The NSS Marine Conservation Group would like to thank Victor for his efficient and tireless effort in leading and organising this project.**

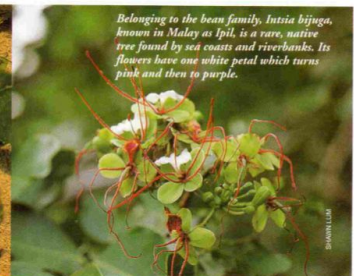
Snippet from Nature News on the translocation of sea grass (Source: Nature Society Singapore)

**Nature Watch 2001**

The July to September 2001 focused on Chek Jawa to help members learn about the biodiversity of Tanjong Chek Jawa.



*Mud crab markings of tiny stripes in the mud*



*Belonging to the bean family, Intsia bijuga, known in Malay as Ipil, is a rare, native tree found by sea coasts and riverbanks. Its flowers have one white petal which turns pink and then to purple.*

Coast of Pulau Ubin ecosystem no longer in Singapore. Tanjong Chek Jawa to a Malay kampong vacated it earlier this year. area, the result of synergy as an expanse of mud and the landward side. These variety of fauna and flora, that. s of seagrasses, including as that the Sea Cow or All seagrasses are listed as

“Rare” or “Endangered” in the Singapore Red Data Book. Extensive seagrass beds are an extremely rare sight in Singapore and in other areas. The sandflats at Chek Jawa are possibly the last of their kind anywhere in Singapore, which speaks volumes for their conservation value. Due to the nature of the substrate, burrowing animals abound such as tube worms and nemertean (a burrowing worm). Horseshoe crabs (*E. Merostomatata*), an ancient form of animal that can rightly be called a living fossil, creep along the bottom. Mantis shrimps can be found stalking prey. Other marine organisms include tunicates or sea squirts, sea cucumbers, sand dollars, nudibranchs and anemones. The mangroves at Chek Jawa feature a magnificent stand of bakau (*Rhizophora species*), a patch of nipah or attap palms



*Flower Crab (F. Portunidae) The males have blue markings on their shells and pincers. They are also known as swimming crab as their last pair of legs are like paddles.*

## Deferment of Reclamation

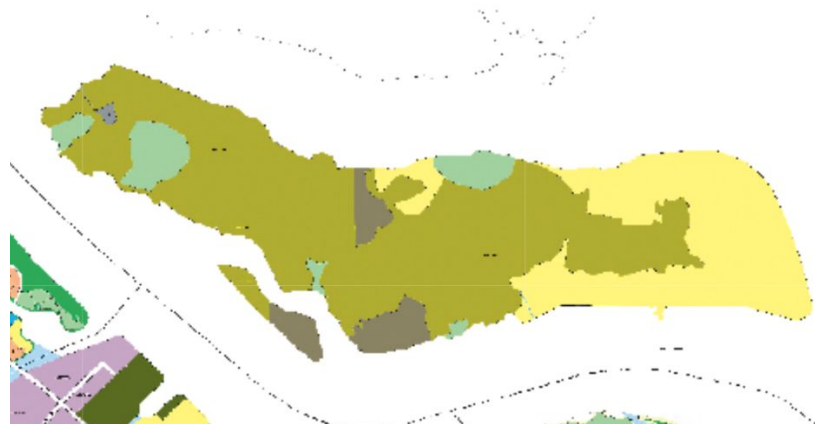
On 14 January 2002, MND released a press statement titled 'Deferment of Reclamation Works at Pulau Ubin'. In it, MND also mentioned "The Nature Society, in a report coordinated by its conservation committee, came to the same conclusion."

### Conclusion

Mr Mah Bow Tan, Minister for National Development, says, "Land in Singapore is scarce. There will always be competing needs for land for development and national security needs. The decision not to reclaim Pulau Ubin at the moment has been made only after we have weighed the trade-offs and carefully considered the land use implications. This episode is a positive example of consultation and collaboration between the Ministry and the stakeholders which has resulted in a win-win situation. The Government will continue to take a balanced and pragmatic approach to land use planning."

Conclusion of MND's press release 'Deferment of Reclamation Works at Pulau Ubin' (Source: Nature Archives)

However, in the URA Master Plan released in 2003, Tanjong Chek Jawa was still earmarked as Reserve land, potentially for reclamation. It remained the same for 2008 and 2014.



Pulau Ubin in the 2003 URA Master Plan (Source: National Archives)

In 2023, in the book 'Peace with Nature', then-CEO of URA, Dr Tan Yong Soon shared that a review of the intertidal marine life was carried out to carefully study the evidence from experts, public and NSS, before deciding on the next course of action. While the URA was working on meetings with MND, civil societies including NSS organised a minister's visit to Tanjong Chek Jawa in 18 Oct 2001 and at the end of the trip, Tanjong Chek Jawa was deemed as worthwhile of conserving. After that, URA officers worked hard and considered views from various institutions like NUS, Temasek Marine Science Institute, Raffles Museum of Biodiversity, and NSS.

**The inter-tidal marine life was missed by government agencies and the Nature Society (Singapore), experts and laymen, until it was stumbled upon in December 2000. Would the new discovery at this late stage merit a re-thinking of the planned reclamation? As a public servant, my job is to improve the quality of living of Singaporeans and their future generations. I strongly believe in the importance and priorities of security and economic development, having spent much of my career in the Ministries of Defence and Finance. But both security and economic development are means to an end. The end is a better quality of living and sustainable development for Singapore and Singaporeans. Decision-making must be evidence-based. Intellectual humility, the willingness to be open to learn from others, to listen, and to seek clarity is important. And should significant facts change, there must be courage to change the decision.**

An excerpt from Dr Tan's article in Peace with Nature (Source: Peace with Nature)

## Friends of Ubin Network (FUN)

In 2014, Friends of Ubin (FUN) was formed, under the leadership of then-Minister of State, Mr Desmond Lee, to continue to conduct biodiversity and cultural projects on Pulau Ubin. The membership of FUN is diverse: nature groups, heritage groups, villagers, academics and passionate stakeholders. NSS was represented by Dr Shawn Lum and Marcus Chua.

## 2014 Position Paper on Ubin

With the establishment of FUN, MND called for ideas on protecting Pulau Ubin. Responding to this, NSS submitted a position paper on 27 October 2014, highlighting the ecological and biodiversity importance of Pulau Ubin, and provided recommendations for enhancement of wildlife habitats, and cultural and recreational outdoor recreational aspects. Most importantly, it once again called for a protected status for Pulau Ubin.

Nature Society (Singapore)



NSS Position on Pulau Ubin

This document is endorsed by the Council of the Nature Society (Singapore)

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  - D) Recommendations for Enhancement of Wildlife Habitats
- III) Recommendations for Enhancement of the Cultural and Outdoor Recreational Aspects
- IV) Concluding Remarks

References

Acknowledgements

Attached

- 1) **Map 1:** National Parks' Brochure Map on Ubin (excl. most of Outward Bound School's territory). **Note:** The name of places, roads, rivers and lakes will follow those given on this latest brochure map.
- 2) **Map 2:** Location of Non-utilised Aqua-culture 1 Besar.

NSS Position on Pulau Ubin, published in 2014 (Source: Nature Society Singapore)



Today, 19 November 2014 (Source: NewspaperSG)

## Pulau Ubin Today

Since its formation in 2014, FUN continues to lead and contribute to grounds up initiatives, under five key thrusts. NSS remains active and represented at FUN today.

Pesta Ubin, an extended festival to celebrate and showcase Ubin's unique history, culture and biodiversity, is held annually. Pesta Ubin culminates in Ubin Day. In the past few years, Minister for National Development, Mr Desmond Lee would announce updates on recent developments in Ubin or initiatives for the future, usually contributed by FUN members. NSS continues to contribute to Ubin's natural heritage such as conducting coastal clean-ups, forest clean-ups and will hold a booth during Ubin Day to raise awareness of our biodiversity.



Kerry Pereira sharing about NSS during the Ubin Day in 2015 (Source: Pesta Ubin Facebook)

Since 2016, Pulau Ubin is also centrally managed by NParks.

## NParks to be Central Managing Agency for Pulau Ubin

03 Jun 2016

*New management model will allow NParks to manage the island more holistically*

*Singapore, 4 June 2016* — The National Parks Board (NParks) will take on the role of the central managing agency for Pulau Ubin. This was announced at Ubin Day 2016 by Minister Lawrence Wong, who was the Guest-of-Honour at the event.

Announcement for NParks to centrally manage Pulau Ubin (Source: <https://www.nparks.gov.sg/news/2016/6/nparks-to-be-central-managing-agency-for-pulau-ubin#:~:text=As%20the%20central%20managing%20agency,maintaining%20the%20greenery%20on%20Ubin.>)

Pulau Ubin is also part of the Khatib-Ubin Important Biodiversity Area (IBA) which is one of the three Important Biodiversity Areas by Birdlife International for its significance for the international conservation of bird populations and to secure the long-term conservation of these areas that are significant to birds and biodiversity.



## Straw-headed Bulbul Conservation in Pulau Ubin

SHB was first listed as Vulnerable in 1988 in the IUCN Red List. In 1994, the species was uplisted to become Vulnerable and subsequently Endangered in 2016. By 2018, Straw-headed Bulbul is Critically Endangered.



Straw-headed Bulbul (Source:Lee Tiah Khee)

According to the Straw-headed Bulbul National Species Action Plan, from 2000 to 2016, the Straw-headed Bulbul subpopulation on the main island of Singapore was shown to be stable, while that of the northeastern offshore island, Pulau Ubin, was shown to be increasing at a rate of 3.69% ( $\pm 1.21\%$ ) annually (Yong et al., 2017).”<sup>1</sup>

The population of Straw-headed Bulbuls in Singapore island and Pulau Ubin is of global significance. It appears that our population is the only increasing one globally, making us a global stronghold for Straw-headed Bulbul.

On 4 May 2019, together with Birdlife International and Oriental Bird Club, NSS organised a first ever workshop to discuss how the Straw-headed Bulbuls can be conserved, focusing on monitoring and ecology, genetics and captive breeding, advocacy and protection trade and enforcement, and community and engagement. It was attended by They included the Asian Species Action Partnership, Conservation International, Malaysian Nature Society, National Parks Board, National University of Singapore, Nanyang Technological University, Nature Society (Singapore), Traffic Southeast Asia, and Wildlife Reserves Singapore.

In the same period, NSS also published an article in Nature Watch to raise awareness for Straw-headed Bulbuls amongst our members.

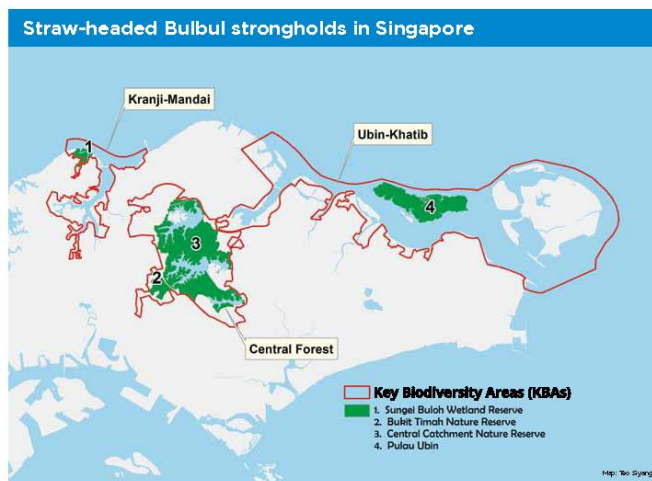


## SAVING THE Straw-headed Bulbul IN SINGAPORE

International and local experts, birders and conservationists have come together to chart a roadmap and organise a working group to implement long-term protection for this critically-endangered species in Singapore threatened by the Asian songbird trade and habitat loss.

Text by **Trixie Tan**  
Photos by **Francis Yap** and **Con Foley**

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**Government protection for Key Biodiversity Areas (KBAs)**  
Current Straw-headed Bulbul strongholds in Singapore fall within three Key Biodiversity Areas (KBA)<sub>2</sub> (formerly known as Important Bird and Biodiversity Areas) of Ubin-Khatib, Kranji-Mandai and Central Forest. It is important to note that not all parts of KBAs are officially recognised by the Singapore government. Protected areas are only those designated as Nature Reserves and Nature Parks. Parts of KBAs considered to be of biodiversity importance — such as Bukit Brown and Khatib Bongau — are not included in the Singapore Green Plan<sub>4</sub>.

“The bulbul is also found in pockets of unprotected woodland such as Bukit Brown and Khatib Bongau. More should be done to protect such places which are currently outside the existing reserve network. Other threatened biodiversity, including our Sunda Pangolin and Grey-headed Fish Eagle could also benefit from the conservation actions targeting the bulbul.”



Dr Ho Hua Chew  
Vice-president, NSS

Not many people are aware of or have heard the rich, melodious and bubbly song of the Straw-headed Bulbul (*Pycnonotus zeylanicus*), and so might have wondered why this bird has garnered so much interest from conservationists. This bird has a song that truly lifts the spirit when heard in the wooded countryside of Singapore, and is absolutely unforgettable.

Once prevalent across Southeast Asia, the species currently estimated to have a population between 600 and 1,700 individuals can only be found in small pockets in Singapore, Malaysia and parts of Indonesia. Surprisingly, Singapore has an estimated population of 202 birds including approximately 110 in its stronghold on Pulau Ubin. Breeding has also been recently recorded.

The idea of convening this workshop came about in early 2018,

even before the IUCN Red List of Threatened Species escalated the Straw-headed Bulbul to critically endangered<sub>1</sub> a few months later in August.

The next level would be extinct in the wild, and there is no going back from that. Habitat loss from incessant urban development and unfettered poaching for the songbird trade are the main culprits for its declining population.

Back in 2001, when I was carrying out a survey of the population

of the bulbul in Singapore for my Masters dissertation, little did I realise that the study would become important as baseline data. Since then, monitoring has continued and more sightings have been recorded during regular bird census collections by the Nature Society (Singapore) Bird Group and surveys by the National Parks Board (one was conducted on Pulau Ubin in 2015) such that numbers seem to be increasing in Singapore.

It has been difficult however to ascertain more accurate counts as significant areas of habitat deemed suitable for the bulbuls are not easily accessible (being used for military training or closed to the public).

Presentations during the workshop emphasised that more work needs to be carried out to:

- Monitor and map the distribution of wild populations.
- Prevent further habitat loss by preserving and protecting existing suitable locations (see Key Biodiversity Areas).
- Improve degraded habitats and increase ecological connectivity at the landscape scale.
- Understand the biology and breeding through ex-situ conservation.
- Coordinate with government agencies to eliminate smuggling, illegal sales and poaching caused by the Asian caged songbird trade.
- Strengthen local legislation and enforcement.
- Increase protection status from CITES Appendix II to Appendix I.
- Educate the public by highlighting the plight of the bulbul and the need to prevent extinction of the species.



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1 <http://www.iucnredlist.org/species/22712603/132470468>  
2 KBAs are 'sites contributing significantly to the global persistence of biodiversity', in terrestrial, freshwater and marine ecosystems; World Database of Key Biodiversity Areas, <http://www.keybiodiversityareas.org/what-are-kbas>  
3 <http://datazone.birdlife.org/site/factsheet/16391>  
4 <http://www.mew.gov.sg/grab-our-research/singapore-green-plan-2012>

**The Straw-headed Bulbul**

**DEVELOPING A CONSERVATION ROADMAP FOR SINGAPORE**

The first ever workshop to save the Straw-headed Bulbul (*Pycnonotus zeylanicus*), held on 4 May 2019, was jointly organised by Nature Society (Singapore), BirdLife International and Oriental Bird Club, and supported by Mapletree Investments. It was attended by over 60 enthusiastic participants from non-government organisations (NGOs) and governmental agencies. They included the Asian Species Action Partnership, Conservation International, Malaysian Nature Society, National Parks Board, National University of Singapore, Nanyang Technological University, Nature Society (Singapore), Traffic Southeast Asia, and Wildlife Reserves Singapore.



“The workshop comes at a very timely moment as we are now working to strengthen regional efforts to address the massive trade in songbirds in Southeast Asia. A regional songbird conservation meeting that was concluded in April in Singapore also recognised the grim situation facing the Straw-headed Bulbul, and so it is important that stakeholders in Singapore work fast to collaborate at the national level and synchronize conservation efforts.”

**Dr Anuj Jain**, BirdLife International

“The workshop is the first ever of its kind focused on a threatened bird in Singapore and led by Nature Society (Singapore)... The bird has already gone extinct from Thailand, and most parts of Malaysia and Indonesia. If nothing is done to conserve it in Singapore today, it may even slip towards global extinction.”

**Mr Lim Kim Chuan**, NSS

The species currently estimated to have a population between 600 and 1,700 individuals can only be found in small pockets in Singapore, Malaysia and parts of Indonesia.



Photo: Don Pater



Photo: Don Pater

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Photo: Frank Yap

Large areas of suitable habitats remain outside both the KBAs and the protected area network, and which past surveys have showed to be populated by the Straw-headed Bulbul. Future conservation efforts should be targeted at expanding the existing KBAs to include the additional areas, and also bringing in legislation to provide these areas with the same status as the nationally recognised Nature Reserves.

### Priorities

The second half of the full-day workshop was devoted to brainstorming and action planning by five breakout groups. Each group presented their recommendations on the following strategies.

#### ■ Monitoring and ecology

1. Determine specific habitat characteristics and requirements.
2. Investigate the extent of dispersal and connectivity among subpopulations in Singapore.
3. Identify the species occupancy rates across Singapore.
4. Investigate movements of individuals within their home range as this helps highlight the important corridors/paths/micro-habitats that need to be conserved.
5. Obtain access to survey sites with potentially high density.

#### ■ Genetics and captive breeding

1. Collate data from captive populations to learn more about the species' biology and general needs as well as other work streams (eg trade and legislation – bulbuls confiscated as part of the illegal trade can be used for genetic data collection as well).
2. Understand/determine the genetic diversity of the population in Singapore, as well as across its global range.
3. Research into the slow population growth rate of the bulbuls through the ringing of birds and/or telemetry.

**Large areas of suitable habitats remain outside both the KBAs and the protected area network, and which past surveys have showed to be populated by the Straw-headed Bulbul. Future conservation efforts should be targeted at expanding the existing KBAs to include the additional areas, and also bringing in legislation to provide these areas with the same status as the nationally recognised Nature Reserves.**

4. Population and habitat viability analysis.

#### ■ Advocacy and protection

1. Study the existing habitats where the bulbuls occur to understand their habitat preferences so as to enhance efficiency of focal species protection.
2. Promote as the national bird of Singapore, and as a conservation flagship to create greater awareness and interest to strengthen its conservation.
3. Develop an advocacy plan to change currently unprotected strongholds.
4. Use knowledge of habitat preference and home range to predict potential new habitat.

#### ■ Trade and enforcement

1. Improve traceability of native bird species detected in pet shops in Singapore.
2. Identify poaching hotspots.
3. Tackle the potential escalation of poaching from small-scale localised events to organised international wildlife crime.
4. Develop evidence chains for witnesses and legal guidance for stakeholders who are not aware.
5. Regulate the trade of other species that also have native populations.

6. Continue patrols at sites and conduct sting operations.
7. Propose an uplisting to CITES Appendix I.

#### ■ Community and engagement

1. Educate and raise awareness of the beauty and uniqueness of the bulbul, the major threats to the species, and the solutions that everyone can contribute to.
2. Conduct walks to influence key decision-makers (eg ministers and government officials) and members of the public.
3. Encourage community engagement through citizen science efforts by creating or tapping on to existing platforms for data collection and sharing.
4. Encourage ownership of the species by the community by:
  - a. Engaging with various stakeholders who have interaction with the bulbuls (eg pet owners).
  - b. Creating or highlighting platforms for public to report offences.
5. Creating a nationwide interest group (on the same lines as OtterWatch).

### Moving forward

The workshop ended with a commitment to champion the survival of the Straw-headed Bulbul so its beautiful song can continue in perpetuity. A workshop report has been drafted and plans for developing a coordinated action plan are underway. Watch this space for updates. 🌱

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*Trixie Tan became a birder and ardent conservationist after joining NSS more than 25 years ago. Now living and working in Adelaide, Australia, she misses the wildlife in Singapore and will continue to support all efforts to protect the environment.*

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The discussion eventually evolved to form the Straw-headed Bulbul Working Group in 2021, co-chaired by NParks and NSS. It included members from the National University of Singapore, Birdlife International, and both Mandai Nature and Mandai Wildlife Group.

In 2023, the National Species Action Plan 2024-2028<sup>1</sup> was released, with a multi-stakeholder approach. NSS focuses on the census and community engagement.

## National action plan to keep endangered straw-headed bulbuls singing in the wild



The straw-headed bulbul is one of the most trapped species in the Southeast Asian bird trade. PHOTO: FRANCIS YAP

Announcement of the National Species Action Plan for Straw-headed Bulbul, published on The Straits Times on 18 December 2023 (Source: <https://www.straitstimes.com/singapore/national-action-plan-to-keep-endangered-straw-headed-bulbuls-singing-in-the-wild>)