

Habitat Enhancement Programme in Pulau Ubin: Floating Wetlands for Our Wildlife

The May 2020 issue of *Ubin Tides* covered the installation of the Pekan Quarry Floating Wetlands. Here, we report the completion of the project and monitoring efforts from 2020.

Covering over 4,000 m², the four large clusters of floating wetlands installed at Pekan Quarry have unique organic shapes to maximise the edge areas for wildlife use. The irregular shapes allow smaller and shyer animals to use the wetlands away from the eyes of others. Pools of water, open gravel and sand pits, and tree snags are also hidden within the wetlands as additional microhabitats for wildlife.

So far, the floating wetlands have attracted birds like herons, kingfishers, waterhens, ducks, dragonflies, damselflies, and even the Smooth-coated Otter (*Lutrogale perspicillata*).

One of the wetlands houses raised 10 nesting platforms. These platforms range from 6 to 9 metres in height and are designed for use by a large number of birds at the same time. So far, we have documented the Grey Heron (*Ardea cinerea*), Purple Heron (*Ardea purpurea*), Great-billed Heron (*Ardea sumatrana*), Oriental Darter (*Anhinga melanogaster*), and Brahminy Kite (*Haliastur indus*) regularly roosting on the platforms.

In May 2022, we recorded the first breeding of the Lesser Whistling Duck (*Dendrocygna javanica*) on Pulau Ubin at the floating wetlands in Pekan Quarry. For two months, the Lesser Whistling Duck family was observed using the wetlands and the various features we put in place for wildlife. These include the different species of marsh vegetation that provide shelter and food for the ducks. The secluded pools were used by the ducks to raise their ducklings.

Floating mats installed along the edges allowed even the tiny ducklings to access the wetlands.

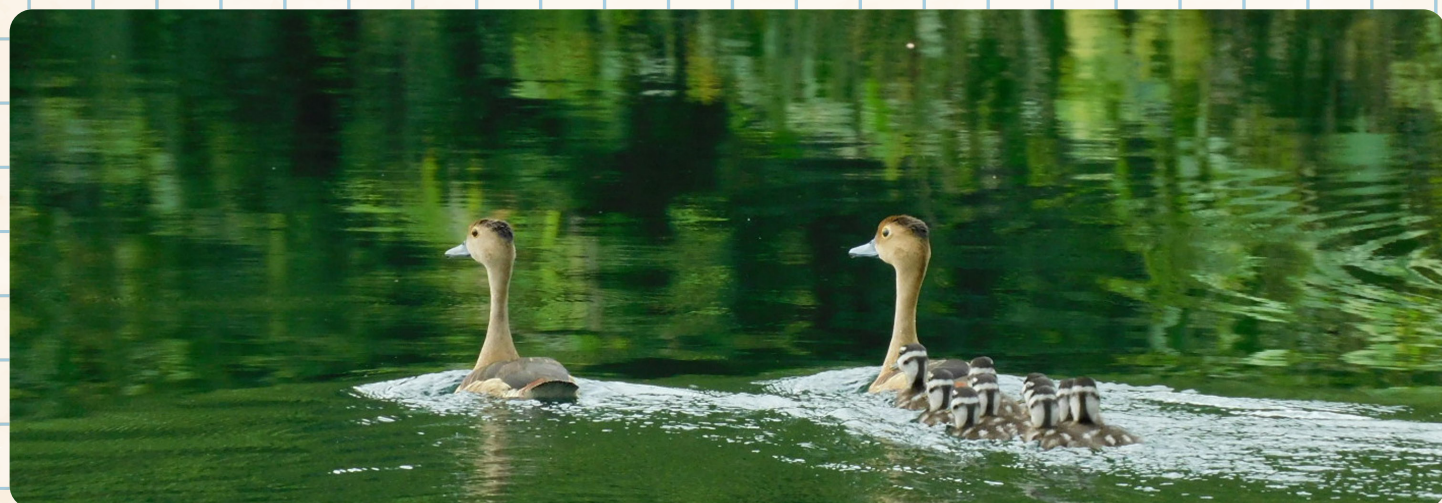
The NParks' Youth Stewards for Nature (YSN) took the opportunity to engage the community in monitoring the number of birds on the nesting platforms, by initiating the Pekan Quarry Citizen Science Bird Survey. Visitors at Pekan Quarry can submit their observations through the Survey, which is an online form accessible via a QR code printed on posters placed in the area. To date, we have received over 170 responses, with the highest count of 28 birds recorded on the nesting platforms.



View from within the wetlands showing the secluded waterways and heron nesting platforms.



The YSN 2021 team that came up with the citizen science monitoring programme for Pekan Quarry.



The whole family of Lesser Whistling Ducks swimming together in Pekan Quarry.

Ubin Tides



Ubin Connects A Learning Symposium!

A group of close to 40 educators, comprising school leaders and key personnel, visited our island for a Learning Symposium on 24 June 2023. This was put together by the Friends of Ubin Network (FUN) Education Workgroup and NParks.

The theme for this Learning Symposium was "Connectedness", where we aimed to bring the participants closer to the pillars of The Ubin Project, highlighting Ubin's cultural, historical, geographical, natural, and sustainable aspects. We hoped for schools to create holistic and interdisciplinary experiences to connect the younger generation to nature and the community.



Educators explored the remains of a prawn farm and mangroves.



Educators came together to discuss their learning points from their Discovery Guided Walk.

The educators were divided into four strands of Discovery Guided Walks led by some of our resource experts, villagers, facilitators, and researchers. Minister for National Development and Minister-in-charge of Social Services Integration Desmond Lee also dropped by to participate in the sharing session held after the walks.

The symposium left educators with a greater love, newfound knowledge and hope for the island.



It's a wrap!
(Photo credit: Jacob Tan)



Share your love for nature and animals at
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The Ubin Project

Our Journey So Far

Started in 2014, The Ubin Project (TUP) aims to preserve Pulau Ubin's rustic charm, its natural environment, biodiversity, and habitats by reaching out to Singaporeans for ideas on how to sensitively enhance its cultural and natural heritage so that Singaporeans can continue enjoying the island. TUP was supported by the Friends of Ubin Network (FUN) which led and contributed to several ground-up initiatives.

Have a look at FUN's fruits of labour and what is in the works!

Completed projects are indicated with a tick.

Biodiversity Conservation

- ☒ Bat roosts, otter holts, and bird nesting sites
- ☒ Floating wetlands
- ☒ Mangrove Arboretum and Coastal Arboretum
- ☒ Reintroduction of Critically Endangered Orchids
- ☐ Reforestation
- ☐ Mangrove restoration
- ☐ Shoreline restoration



Nesting Sites for Blue-throated Bee-eaters

Blue-throated Bee-eaters were first recorded to be nesting in the site in 2020. Video footage and photographs of nesting activity inside nesting tunnels were captured using endoscopes.



Mangrove Arboretum and Coastal Arboretum

Volunteers were involved with collecting propagules and propagating them in the mangrove arboretum for ongoing habitat restoration.



Education & Research

- ☒ Ubin Living Lab (Phase 1 & 2)
- ☒ Ubin Connects: A Learning Symposium
- ☒ Comprehensive Ubin Biodiversity Survey (CUBS)



The Ubin Living Lab (ULL) is dedicated to support field studies, environmental education and community outreach. Since ULL's opening, 6000 participants have made use of its facilities including the Education Workgroup from FUN.



Community, Heritage, and History

- ☒ Archaeological survey
- ☒ Balik Kampung and Pesta Raya@Ubin get-togethers
- ☒ Two Pulau Ubin-themed books, *Footprints on an Island* and *Hunt for the Green Boomerang*
- ☒ Cultural Heritage Workshop
- ☒ Cultural mapping of Ubin Villagers
- ☒ Restoration of Ah Ma Drink Stall
- ☐ Community Liaison Team
- ☐ Restoration of kampung houses
- ☐ Fire safety infrastructure



Pesta Ubin and Ubin Day

Pesta Ubin is an annual showcase of Ubin's rich natural and cultural heritage through community-led activities. Pesta Ubin culminates in Ubin Day where different stakeholders gather to celebrate the island.



Kampung House Restoration

NParks makes sure that the rustic look of kampung houses such as No. 239 (pictured before restoration and after) is retained when they are restored for use by the community.



Community Liaison Team (CLT)

The Community Liaison Team (CLT) strives to connect with villagers and address their concerns. They engage the community and work with FUN to understand issues faced on the island; some initiatives include facilitating visits by medical staff to administer vaccinations.

Nature-based Recreation

- ☒ Upgrading of visitor amenities, displays, and signage
- ☒ Conducting of Kampong Tour and Rustic Reflections Tour
- ☒ Teck Seng's Place
- ☒ Ubin Fruit Orchard (UFO)
- ☒ Ubin microsite
- ☐ Ubin Living Lab jetty

Teck Seng's Place was refurbished to become a demonstration Chinese kampung house that displays items that villagers used in the past. It is now part of the Rustic Reflections Tour led by NParks volunteers.



Sustainable Design and Practices

- ☒ The Ubin Way
- ☒ Preparatory video for Ubin visitors
- ☐ Green microgrid to Kampong Sungei Durian

The Ubin Way

To promote ecologically and socially responsible behaviour on the island, FUN came up with The Ubin Way, a code of conduct containing principles for everyone on Ubin to adopt while on the island.

