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SUMMARY

- For the first time, Tahu Tiga Beach was awarded the status of Turtle Reserve by the Department of Fisheries and management rights were granted to Lang Tengah Turtle Watch for the duration of the 2018 season.
- In 2018, Lang Tengah Turtle Watch at Tanjong Jara Resort was rated 4.71/5 for guest satisfaction.
- We saved 12,116 green turtle and painted terrapin eggs, releasing 9,158 endangered hatchlings into the waters around Tanjong Jara Resort. This figure represents a 70% increase on the number of hatchlings released during 2017.
- We began accepting online nest adoptions as part of our hatchery expansion. This greatly aided our mission to save turtle eggs from local markets, resulting in a record 129 nests being safely relocated to our hatcheries.
- Guest engagement activities were expanded to target a wider audience more often, enriching the experience for all guests visiting the resort.
- The Jennifer Tan Research Hatchery was constructed, facilitating a hatchling study conducted under the supervision of world-renowned sea turtle expert Dr. Richard Reina.
- Team members from Fauna and Flora International (FFI) Cambodia joined us as part of a knowledge exchange to learn more about turtle conservation and how to expand and develop their project.
- We removed 2,761.6 kg of rubbish from Tahu Tiga and Kuala Abang beaches, which are the beaches adjacent to Tanjong Jara Resort. This is a 251% increase on 2017 and was accomplished with the help of 313 local students from eight schools and 62 politeknik students.
- Lang Tengah Turtle Watch collaborated with The British High Commission Kuala Lumpur in a landmark educational outreach programme about marine plastics that involved 5,581 students from 12 schools in the Dungun area.

OUR TEAM



BILL MATTHEWS Project Coordinator

Bill studied at Monash University, graduating with a BSc in Conservation Ecology and Zoology. He was on site this year conducting his research as part of his Honours project.



RIFQAH AHMAD ROSTAM Project Manager

Rifqah graduated with a BSc (Hons) in Marine Science from University Kebangsaan Malaysia. Having worked with the organisation for several years, in 2018 Rifqah was responsible for the overall management of Lang Tengah Turtle Watch at Tanjong Jara.



MILES THOMSON Assistant Project Manager

Miles studied Environmental Management (BSc) at Deakin University. He returned to Tanjong Jara Resort in 2018 as Assistant Project Manager, playing a key role in enhancing community engagement initiatives, specifically the British High Comission school outreach programme.



BELLA JACK Research Officer

Bella graduated with an MA (Hons) in Geography from St. Andrews before completing an Environmental MSc at University College London. She initially joined the project as a Research Assistant Intern in April, but remained for the season as Research Officer.



K.L. CHEW Outreach Officer

Bill studied at Monash University, graduating with a BSc in Conservation Ecology and Zoology. He was on site this year conducting his research as part of his Honours project.

RESEARCH ASSISTANT INTERNS























From left to right: Top row: Jordan Gledhill, Anis Syafinas, Emilie Priou Second row: Brogan Stewart, Ellen Porter, Abraham Chiew Third row: Harriet Job, Coline Raute, James Field Fourth row: Sinead McMahon, Jodie Stroud

	Internship period	Nationality	Current/Past Study	Comments
Jordan Gledhill	March - May	British	BSc Conservation Biology, Plymouth University	Previous experience working with Save Vietnam's Wildlife
Anis Syafinas	May - July	Malaysian	Bachelor of Applied Science in Fisheries, Universiti Malaysia Terrenganu	Planned to conduct a research project on sea turtle hatchlings with UMT
Emilie Priou	May - July	French	Currently studying Wildlife Conservation, Liverpool John Moores University	Previous experience volunteering with Sun Bears conservation in Indonesia
Brogan Stewart	June - August	Canadian	BSc Environmental Science, Concordia University	Planned to conduct a research project on DNA structure and behaviour in Japanese macaques
Ellen Porter	June - July	Australian	Currently studying Zoology, Monash University	Joined for five weeks as part of a collaboration with Monash University
Abraham Chiew	June - July	Malaysian	Currently studying Tropical Environmental Biology, Monash Malaysia	Joined for five weeks as part of a collaboration with Monash University
Coline Raute	July - September	French	Currently studying Conservation and Landscaping, Agrocampus Ouest	Previous experience working in marine conservation in La Reunion and Indonesia
Harriet Job	July - September	British	BSc Biology, University of Sussex	Previous sea turtle conservation experience with Wildlife Sense, Greece
James Field	July - September	British	MSci Marine Biology, Bangor University	Previous experience volunteering with whale conservation in California
Sinead McMahon	August - October	British	BSc Zoology, Exeter University	Previous experience working as an ecologist in the UK
Jodie Stroud	September - October	British	BSc Conservation Biology, Plymouth University	Previously worked in the media industry and came to the project to help us expand our media portfolio

NEST INSPECTIONS

We check our green turtle and painted terrapin nests after 37 and 60 days, respectively. After the first nest inspection, we will check green turtle nests every three days and painted terrapin nests every five days. Nest inspections are important, for identifying the development state of the eggs, as well as any potential problems such as spread of fungus or predation.

Every week we pass the daily schedule of our nest inspections to the resort to display at reception in order to inform guests about our activities. Nest inspections provide an interactive and informative experience, as guests have the chance to see turtle eggs or even hatchlings, while our team explains the incubation process, life cycle, biological, ecological and behavioural details of turtles.



Guests observing a turtle egg during a nest inspection.



HATCHLING RELEASES

Nest inspections are integral for us in monitoring our nests throughout the latter stages of the incubation process. During these inspections, if we find hatchlings that appear ready to emerge later that evening, we will contact reception staff who inform guests of a scheduled hatchling release that evening

Guests often arrive at the Visitors' Hut before 10 p.m. allowing us to informally chat with them about the project. At 10 p.m., we then give a comprehensive briefing about the release including the do's and don'ts. This ensures a smooth release and minimises any risk of unnecessary stress to the hatchlings.

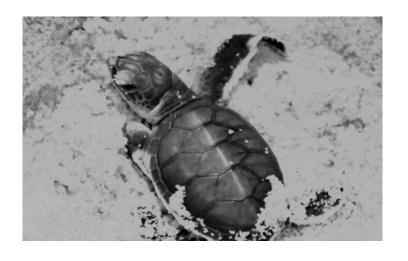
The hatchling release site is chosen to best reflect a natural release site. The site is located around 300 m away from the resort to minimise light pollution which can confuse hatchlings. The guests are safely guided down the beach to the release site under red light to ensure minimal disturbance to potential nesting mothers.

In 2017, Lang Tengah Turtle Watch released 5,374 green turtle hatchlings and 73 painted terrapins. The support received from Tanjong Jara Resort and YTL Hotels in 2018 allowed us to significantly increase our contribution to restoring and protecting turtle populations.





Guests lining the runway during a release.



9,118
ENDANGERED
GREEN TURTLE
HATCHLINGS



40

CRITICALLY
ENDANGERED
PAINTED TERRAPIN
HATCHLINGS

ACTIVITIES AT THE VISITORS' HUT

This year we expanded the range of activities offered at our Visitors' Hut with the aim of engaging more guests outside nest checks and hatchling releases. This was done to improve visitor experience by providing guests of all ages with additional opportunities to be involved in our work.

Turtle Talk

From March to June we offer a 'Turtle Talk' three times a week. Those who came along showed great interest and this platform afforded team the our opportunity to explain more about activities our during the early part of the season, before nest inspections and hatchling releases had begun.



Guests enjoying a 'Turtle Talk' at our Visitors' Hut.

Documentary Night

Documentary nights showing nature films were held twice a week in the early evening to further the opportunities for environmental awareness. However, due to the unpredictable nature of hatchling releases, these nights were only possible until the end of May.

Kids Club

In mid-July, we began to hold a kids club for children aged 7–12 years every Sunday afternoon. Children were given an interactive talk on sea turtles before playing some specially designed turtle themed games. The kids club proved popular whilst it was the European summer holidays and allowed us to tailor our turtle talks to make it more engaging for a younger audience.



Children learning more about turtles during a presentation.



Colouring in one of our children's booklets.

NEST ADOPTION PROGRAMME



2017 the team purchased 83 nests through nest adoption programme, resulting in the release of 5,374 hatchlings. This year we expanded the programme, resulting in a record number of nests relocated into Lang Tengah Turtle Watch hatcheries. We purchased 129 nests, including 121 green sea turtle nests and eight painted terrapin nests. In total, we purchased 12,116 eggs, producing 9,158 hatchlings. This shows a 55% increase in our nest adoption programme in 2018, something that we believe has the potential to grow further in 2019.

The popularity of the nest adoption programme meant that we had to stop accepting adoptions from guests in August. Following this, we supplied guests with an 'expression of interest' form, to be contacted if we require extra adopters in 2019.



Photo of hatchling with nest marker.

This year we collaborated with four local tender holders (licensed egg collectors) along the Terengganu coastline. Once a resort guest adopts a nest, we contact tender holders, asking them to sell us the next available turtle nest. This allows us to purchase the nest directly from them based on a price set by the Department of Fisheries. We then relocate the eggs to our hatcheries to incubate safely.

Once adopted, the nest is then marked with a hand-made wooden stake, bearing the name of the adopter's choice. We send an initial update to the adopter once we have bought the nest on their behalf and continue to send regular updates throughout the incubation process.

THE JENNIFER TAN RESEARCH HATCHERY

2018 saw the construction of The Jennifer Tan Research Hatchery, which was completed on 21st April. The new hatchery was positioned directly in front of the staff quarters on Kuala Abang. Fifty two out of 129 nests were relocated into the research hatchery.



The Jennifer Tan Research Hatchery.

Increased capacity to acquire nests in The Jennifer Tan Research Hatchery facilitated an Honours project undertaken by Bill Matthews in conjunction with Monash University. This study was supervised by a world-renowned sea turtle expert and former IUCN-SSC Marine Turtle Specialist Group member Richard Reina.

The research aim was to outline whether increased moisture content within nests would affect hatchling size and fitness. The five-month project involved the entire team and enriched experiences for interns who were able to acquire new skills in research and analysis techniques.

The collaboration with Monash University also included a threeweek visit from PhD candidate. Christopher Gatto, and two finalundergraduate students year from Monash University and University Monash Malaysia. While Chris was gathering data to build on previous studies, the students able to gain were valuable internship experience and research training from the Lang Tengah Turtle Watch team at Tanjong Jara Resort.



An egg being weighed during the relocation process.



A hatchling during the research process.

COMMUNITY ENGAGEMENT

Beach Clean-Ups

We are glad to report that in 2018 we achieved our goal of significantly increasing our involvement with the local community, local schools and universities by conducting multiple beach clean-up events.

313 school students across eight schools were involved in beach clean-ups during 2018. These events were facilitated with the aid of over 60 university students and numerous teachers and community members. Sponsors included KOSÉ, Richard and Catherine Lewis and the British High Commission Kuala Lumpur.

In total 2,716.6 kg of waste was removed from beaches around Tanjong Jara Resort, of which 1,085 kg was recycled. A cleaner coastline contributes towards creating healthy community. The empowerment of the community to take care of the local environment will result in a more suitable habitat for marine species which occur in the area, including sea turtles. This also reflects positively on satisfaction as they will enjoy cleaner beaches during their stay at Tanjong Jara Resort.



Local school students participating in a beach clean-up.

British High Commission Project



Children learning more about turtles during a presentation.

5,581 students were visited through an educational outreach programme run in collaboration with The British High Commission Kuala Lumpur.

One of the main aims of Lang Tengah Turtle Watch is to foster an increased sense of ownership among pupils and community members for their surrounding environment through education and practical events. Our collaboration with The British High Commission Kuala Lumpur was a landmark initiative for educational outreach in Dungun, Terengganu.

The students from 12 schools were presented with interactive talks, specifically designed to help them understand the environmental challenges facing Malaysia today. As part of this,

educational booklets were produced in English and Malay for the students to complete.

Multiple surveys were conducted before and after workshops to measure base levels of environmental knowledge and awareness among students. The results of these surveys will be used to identify knowledge gaps to properly inform future environmental awareness education.

Further to this, we also organised the chance for a number of these schools to visit the hatcheries at Tanjong Jara Resort. This interactive experience allowed the students to see more of the work that we do, and hopefully, through increased engagement, we were able to encourage a greater sense of environmental stewardship.



THE RANGERS

Our rangers, Roslin and Khairul, have been with us since 2016 and returned to perform a slightly different role in 2018. The willingness of Mr. Ambir (Tanjong Jara Resort Head of Security) to station a security guard overnight in a small guardhouse overlooking our guest hatcheries allowed our rangers to station themselves halfway down Tahu Tiga during patrolling hours. Our rangers were able to locate 15 green turtle nests and eight painted terrapin nests on Tahu Tiga Beach this season. Each of these nests was safely relocated to our hatcheries.

Our rangers are always on standby to aid in our hatchling release events, ensuring the hatchlings make it safely to the sea. Guests often express their appreciation in seeing Tanjong Jara Resort and Lang Tengah Turtle Watch employing local staff for an ecologically beneficial and sustainable cause.



Our rangers looking for a nest that was laid on Tahu Tiga Beach.

GUEST SATISFACTION

Iln 2018, 110 guests completed feedback forms after visiting the Visitors' Hut for a nest check, hatchling release, or an informal visit during our operating hours.

Analysis of this feedback highlighted the following results.

- 100% of retuning guests surveyed felt that the resort had been enhanced by the establishment of the turtle project.
- 17% of guests surveyed were first time visitors who had been recommended to stay at the resort specifically to experience the turtle conservation activities on offer.
- Guests surveyed consistently complimented the informative and friendly experience provided by the Lang Tengah Turtle Watch team.
- Lang Tengah Turtle Watch at Tanjong Jara Resort achieved an average rating of 4.71/5 with regard to: the level of information given by our team, the management of the project and the overall experience.
- 78.18% of guests surveyed said they would return to the resort specifically to visit the turtle project again.
- 100% of guests surveyed would recommend Lang Tengah Turtle Watch at Tanjong Jara Resort to friends/family/colleagues.

These results indicate that Lang Tengah Turtle Watch at Tanjong Jara Resort continues to be an attraction for guests and a valued addition to their holiday experience. The Lang Tengah Turtle Watch team continually reviews its methods of practice to ensure we achieve the highest standards possible.

Common feedback among surveyed guests indicated that guests would appreciate more information about the turtle project from an earlier point in their stay. There was an emphasis on the suggestion that Lang Tengah Turtle Watch could have more of a presence in the reception area and that there could be more signage directing people towards the hatcheries around the resort.

GUEST REVIEW ON TRIPADVISOR

Relaxing Luxury Beach Resort" Reviewed May 2018

"[...] A final treat is the turtle conservation being undertaken on the beach. Nests of eggs are rescued from along the coast and protected, nurtured and hatched before being released to the sea. Each nest has 100 to 150 eggs and hatch between June and September. The conservation team are very knowledgeable and happy to spend time explaining all about their work. [...]"

"The Very Best of Malaysian Hospitality" Reviewed May 2018

"[...] It was a great joy during our first evening at the resort to witness the release of 29 baby sea turtles raised in the on-site hatchery managed by the Lang Tengah Turtle Watch group. [...]"

"Don't Miss the Turtles" Reviewed August 2018

"[...] The highlight of the stay was definitely the turtle hatchling release. The hotel's beaches are home to a turtle sanctuary, and a conservation group relocates turtle nests to a protected hatchery so that the baby turtles can hatch. Turtle eggs are a delicacy in Terengganu, and despite the government outlawing their consumption, you can still find them being sold illicitly. [...]"

"Lovely Beach Resort" Reviewed August 2018

"[...] The turtle hatches were brilliant, one of the reasons we picked here. [...]" t of 129 nests were relocated into the Research Hatchery.

"Beautiful Place, with Attentive Staff" Reviewed October 2018

"[...]The highlight was being able to view two turtle hatchling releases during our stay - closely followed by snorkelling with an adult turtle on our trip to Tenggol island. If you are fortunate enough to see a hatchling release, please do give to help support the charity. [...]

"If You Go, You Won't Want to Leave" Reviewed November 2018

"[...] I really could go on and on about the place from the restaurant quality to activities to even having a turtle sanctuary, the place is awesome. [...]