

## press release

### S.E.A. Aquarium Celebrates Singapore's 53<sup>rd</sup> Birthday with Vanda the 'Miracle' Baby Zebra Shark

- *Believed to have hatched without a father, Vanda turns two on 9 August*
- *Aquarists have been providing special care for the rare species*
- *Singapore Residents can commemorate National Day with the nation's only underwater flag pass at the aquarium and S\$53 bundled packages to Resorts World Sentosa's attractions*



Aquarists at S.E.A. Aquarium documented the growth of "Vanda" the zebra shark at various stages from (left) in an egg case at approximately 6-8 weeks, (centre) at week 15 when the organs have fully formed and the markings on the body were more obvious, and (right) at week 16 when the pup emerged. PHOTO CREDITS: RESORTS WORLD SENTOSA.

[CLICK HERE TO WATCH THE VIDEO](#)

**SINGAPORE, 31 July 2018** – As Singapore turns 53 this August, a local fishy resident at S.E.A. Aquarium in Resorts World Sentosa will celebrate her second birthday on National Day itself: a zebra shark named "Vanda" who is believed to have hatched from a single parent.

Aquarists believe that Vanda was hatched asexually in the absence of a male, through a natural process called parthenogenesis. Parthenogenesis involves the development of embryos without the fertilisation of eggs, and has been recorded in plants and animals including fish, snakes and lizards, in the wild and under human care.

Sharks reproducing asexually is an extremely rare phenomenon, but not unheard of. Some experts believe the female's ability to produce offspring from an unfertilised egg could be an invaluable survival mechanism in the absence of a suitable mate. It is a way of keeping their lineage going for one or two breeding seasons until the female comes across a suitable mate.

James Hong, Senior Aquarist at S.E.A. Aquarium, said: "Our female zebra sharks have been laying eggs for some time, but we never thought the eggs would hatch because there have been no males for almost two years. Nature truly finds its way and we took the opportunity to monitor the entire process and learn from

this ‘virgin birth’ phenomenon. However, we are also aware that female sharks have been documented to store sperms for extended periods of time in the absence of males. Until we have DNA analysis on Vanda, we are not ruling out this possibility. Whatever the case may be – asexual or sexual reproduction – she is a truly special baby hatched on 9 August 2016, and we decided to name her “Vanda” after Singapore’s national flower.”

Zebra sharks are oviparous and females lay large dark brown eggs cases, also called “mermaid’s purses”. Once a female lays her eggs, aquarists will then carefully collect the egg cases to incubate and closely monitor them for embryo development until they hatch. The eggs can take between four to six months to hatch if an embryo is present, and they are extremely sensitive to water conditions such as temperature, flow and salinity.

Amongst the nine eggs collected by the aquarists between March to June 2016, only Vanda survived, which makes her extra special to the curatorial team. Aquarists have been providing special care for Vanda, hand-feeding her with small fish, shrimps and other crustaceans in her home at Shipwreck Habitat. Guests may sometimes miss Vanda as zebra sharks are nocturnal, spending most of the day resting on the sea floor where they camouflage well.

Zebra sharks are so named because newly hatched pups have stripes on their bodies resembling that of a zebra. Eventually, these stripes fade away and they develop small black dots against a tan body, which is why they are often mistakenly referred to as the leopard shark. They can be found in the shallow waters of the Indo-West Pacific.

Worldwide, the numbers of zebra sharks are dwindling as a result of human activities like degradation of coral reef habitats, pollution and overfishing including shark finning. Currently, zebra sharks are listed as “Endangered” in the IUCN\* Red List of Threatened Species.

From 9 to 12 August, guests can head to Singapore’s most loved aquarium to learn more about Vanda and other species. These include an all-new daily talk at Shark Seas where aquarists will share more information on sharks, their behaviours and how they care for these commonly misunderstood species. In addition, guests can also witness an iconic underwater flag pass happening at 3.45pm amongst 40,000 marine animals in the Open Ocean Habitat as a salute to Singapore’s independence.

As part of the nation’s 53<sup>rd</sup> birthday, Singapore Residents can enjoy discounts on bundled packages to Resorts World Sentosa’s attractions from 1 to 31 August. These include two adult one-day tickets to S.E.A. Aquarium and the Maritime Experiential Museum at only S\$53 (U.P. S\$110) and two adult one-day tickets to Adventure Cove Waterpark and the Maritime Experiential Museum at S\$53 (U.P. S\$108). For more information on the resort’s National Day promotions, visit [www.rws.fun/sg](http://www.rws.fun/sg)

More information on Vanda can be found in **Appendix A**.



\*IUCN – International Union for Conservation of Nature

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### **ABOUT S.E.A. AQUARIUM**

Opened in November 2012, S.E.A. Aquarium at Resorts World Sentosa is one of the world’s largest aquariums home to more than 100,000 marine animals from across 1,000 species. Featuring more than 50 diverse habitats, S.E.A. Aquarium exhibits close to 80 threatened species including the manta ray, Clarion angelfish and a variety of beautiful corals that mirror a pristine aquatic environment. Through interactive programmes, up-close animal encounters and immersive learning journeys, S.E.A. Aquarium aims to inspire visitors to protect the world’s oceans.

S.E.A. Aquarium collaborates with local and regional partners in marine conservation projects and is accredited by the Association of Zoos & Aquariums (AZA) and World Association of Zoos and Aquariums (WAZA).

### **ABOUT RESORTS WORLD SENTOSA**

Resorts World Sentosa (RWS), Asia’s premium lifestyle destination resort, is located on Singapore’s resort island of Sentosa. Spanning 49 hectares, RWS is home to world-class attractions including Universal Studios Singapore, S.E.A. Aquarium, the Maritime Experiential Museum, Dolphin Island and Adventure Cove Waterpark. Complementing the adventure and adrenaline of its theme parks and attractions are six unique luxury hotels, the world-class Resorts World Convention Centre, a casino and the Asian flagship of a world-renowned destination spa. RWS offers award-winning dining experiences and exciting cuisine from around the world across its many renowned celebrity chef restaurants, establishing itself as a key player in Singapore’s vibrant and diverse dining scene and a leading gourmet destination in Asia for epicureans. The integrated resort also offers world-class entertainment, from original resident productions to concerts and public shows such as Crane Dance and Lake of Dreams. RWS has been named “Best Integrated Resort” since 2011 for seven consecutive years at the TTG Travel Awards which recognises the best of Asia-Pacific’s travel industry.

RWS is wholly owned by Genting Singapore, a company of the Genting Group. For more information, please visit [www.rwsentosa.com](http://www.rwsentosa.com).

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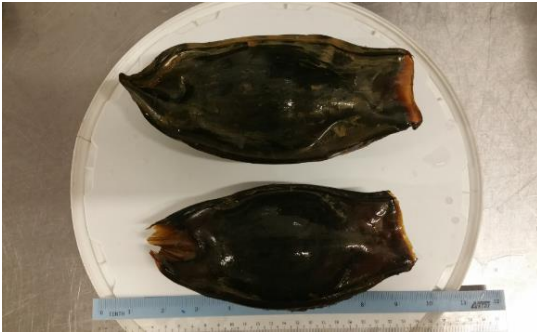
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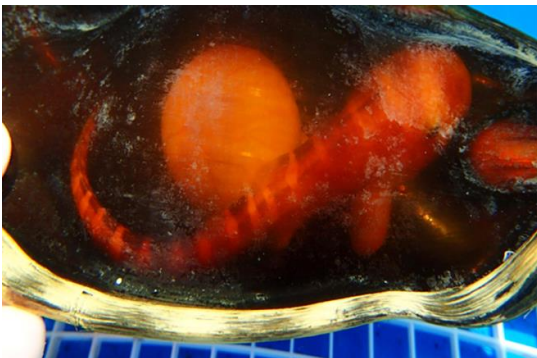
## APPENDIX A

### Note to Editors

1. Photos and video of the zebra shark can be downloaded from <https://app.box.com/v/SEAAZebraShark>
2. All photos and video are to be attributed to Resorts World Sentosa



Zebra sharks (*Stegostoma fasciatum*) are oviparous and females lay large dark brown egg cases, also called “mermaid’s purses”, which can be about 17cm in length.



The eggs can take between four to six months to hatch if an embryo is present. This image of Vanda was taken during week 11, with the body and organs fully formed, and the faint black and white markings have developed along the body.



Images of Vanda taken at (left) after hatching and (right) at six months. Newly hatched pups are dark in colour with lighter bands, forming a striped pattern similar to that of a zebra. Eventually, these stripes fade away and they develop small black dots against a tan body.



Aquarists have been providing special care for Vanda, hand-feeding her with small fish, shrimps and other crustaceans in her home at Shipwreck Habitat. Guests may sometimes miss Vanda as zebra sharks are nocturnal, spending most of the day resting on the sea floor where they camouflage well.



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