



## Press Release

# **Dubai Aquarium & Underwater Zoo marks historic first with assisted breeding programme for Sand Tiger Sharks**

- *Partners with SEA LIFE Melbourne Aquarium for pioneering the artificial insemination programme on viviparous sharks*
- *Initiative aims to strengthen awareness about conservation issues with Sand Tiger Sharks listed as 'Vulnerable' on the IUCN Red List of Threatened Species*
- *Highlights commitment to develop skills at aquariums to self-sustain inhabitants*
- *Modern cryogenic lab to support the breeding programme now operational at Dubai Aquarium & Underwater Zoo*
- *New 'Back of House' tours including an Underwater Observatory launched to offer visitors unique insights into the programme as well as valuable perspectives on managing the aquarium*

**Dubai, UAE; August 12, 2015:** Dubai Aquarium & Underwater Zoo, a flagship asset of Emaar Retail LLC, is marking a global historic first with the launch of a pioneering assisted breeding programme for one of its star inhabitants, the Sand Tiger Shark.

Dubai Aquarium has the largest of its kind aquarium population of Sand Tiger Sharks (*Carcharias taurus*), also known as the Grey Nurse Shark, which is listed as ecologically 'Vulnerable' on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species.

Typically docile, the Sand Tiger Shark population is facing vulnerabilities due to a slow reproductive cycle and indiscriminate shark finning, with the result that only 1,500 of them are accounted for along the Australian East Coast, one of the species natural habitats. At current rate, the species could become extinct in the next three decades.

This leading-edge, assisted breeding programme undertaken by Dubai Aquarium & Underwater Zoo, in collaboration with SEA LIFE Melbourne Aquarium aims to sustain the population of the Sand Tiger Shark.

Similar assisted reproduction programmes have been initiated successfully for the conservation of Pacific White-Sided Dolphins, Bottlenose Dolphins, Spanish Ibex, Cheetah and the Giant Panda. Efforts have also been made by aquariums on assisted reproduction of egg-laying (oviparous) sharks. This initiative by Dubai Aquarium & Underwater Zoo marks a significant first in a viviparous shark species – one that gives birth to pups.

In addition to raising awareness on the conservation challenges, the programme is a significant step for aquariums worldwide in developing skills to self-sustain populations without having to source from the wild.

Maitha Al Dossari, Chief Executive Officer of Emaar Retail LLC, said: "The launch of this pioneering scientific study in Dubai Aquarium & Underwater Zoo highlights the focus we place on promoting research that will help support endangered species and conserve the environment. A species that is even older than dinosaurs, sharks face innumerable threats across the world. Through a global collaboration, we are putting the spotlight on shark conservation while taking a proactive step to build the population."



Paul Hamilton, General Manager & Curator of Dubai Aquarium & Underwater Zoo, added: “We are committed to raising awareness on conservation issues both locally and internationally. It is exciting to take a trailblazing role in the fight to save the Sand Tiger Shark species. We are hopeful that our efforts will set a research benchmark in assisted reproduction of sharks as well as inspire aquariums globally to develop skills to self-sustain their inhabitants. We are confident that the techniques learnt in Dubai Aquarium & Underwater Zoo will eventually be applied to the conservation of sharks worldwide.”

As part of the programme, Dubai Aquarium & Underwater Zoo expects to set scientific protocols in areas including the handling of Sand Tiger Sharks, sperm collection and its cryopreservation, ultrasound monitoring of female sharks and hormone analysis to assess their reproductive cycle, the artificial insemination process and potential live birth of pups.

A full-fledged cryopreservation lab has already been set up in the Underwater Zoo. The sperm collection will commence in the coming days. It will be stored at the cryopreservation lab until the female Sand Tiger Sharks within Dubai Aquarium are ready for the assisted reproduction.

The project will be led by Research Consultant Dr Jon Daly. In 2013, Dr Daly, together with The Aquarium Vet, Dr Rob Jones, made history at SEA LIFE Melbourne Aquarium with the birth of a Brown Banded Bamboo shark – the first ever shark in Australia to be born via artificial insemination. The pair also rewrote history on a global scale, as this was the first shark pup born via live semen sample transported from one facility to another.

This extraordinary advancement in artificial insemination was part of an ambitious nine-year project into understanding the reproductive behaviours of sharks endemic to Australia, as well as the continuation of Dr Daly’s studies into implementing captive breeding programmes.

These milestones have paved the way for Dr Daly to share his expert knowledge with other aquariums around the world, and as such will be extending his consultancy for a period of three months at Dubai Aquarium & Underwater Zoo. During this time, he will set up an all-new cryopreservation lab as well as continue his curatorial research on the Sand Tiger Sharks.

A full-time Research Veterinarian is on staff at Dubai Aquarium & Underwater Zoo to oversee the assisted breeding programme and other conservation based initiatives.

Occurring in subtropical and warm temperate oceans, Sand Tiger Sharks have a reproductive cycle of two years with a 9 to 12 month gestation period. While up to 12 embryos are developed in the initial stages, due to uterine cannibalisation, ultimately only two pups are born. As a result, annual rates of population increases are very low.

The assisted breeding programme at Dubai Aquarium & Underwater Zoo will not only potentially help build a population of Sand Tiger Sharks in Dubai, but also contribute to creating the world’s first shark gene bank through the cryopreservation of the shark sperm thus supporting international efforts in sustaining biodiversity.

Two new educational experiences, Researcher and Explorer, have been introduced to provide guests with unique insights into the various operations of Dubai Aquarium & Underwater Zoo. These tours are part of the enhanced Back of House experience. Those who opt for The Researcher Experience will tour the behind-the-scenes operations of Dubai Aquarium & Underwater Zoo, learning about the unknown facets of the aquatic world including an up-close view of the working laboratory, the adaptations of various species and insight into the multiple onsite breeding programmes.



Additionally, Researchers will experience a world's first through close encounters from an Underwater Observatory, a submerged platform, bringing guests face-to-face with different species. Here, guests may also have the opportunity to feed the fish surrounding them.

The Explorer journey starts with an animated guided tour in a Simulator ride. The narrator is a sea turtle, signaling the conservation efforts led by Dubai Aquarium & Underwater Zoo to preserve sea turtle populations.

From there, Explorers continue their journey on the newly automated glass-bottom boat, cruising with a guide over the aquarium for close encounters with the different species and an opportunity to feed the fish below. Among the aspects covered include the building of Dubai Aquarium & Underwater Zoo, feeding habits of the various species and insights on aquatic ecosystems.

Furthermore, The Ocean School at Dubai Aquarium & Underwater Zoo is opening doors for school children to learn about the assisted breeding programme of Sand Tiger Sharks.

Dubai Aquarium & Underwater Zoo features a 270-degree walkthrough tunnel. Underwater Zoo, located on Level 2 above the main aquarium tank, presents the bio-diversity in different ecological zones including the Rainforest, Coastline and UAE Night Creatures habitats. The animals featured here include Humboldt Penguins, Piranhas, Giant Spider Crabs, Small-Clawed Otters, Sea Jellies and Clownfish. Also home to King Croc, one of the world's largest crocodiles, and his companion; the pair have recently expanded their family and the baby crocs are a popular addition to Dubai Aquarium & Underwater Zoo.

For further information, visit [www.thedubaiaquarium.com](http://www.thedubaiaquarium.com) or call 04 448 5200.

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### **Note to Editors**

#### **About Emaar Retail LLC:**

Emaar Retail LLC, a premier provider of leisure and entertainment experiences, is developing a portfolio of brands in key growth markets and is strategically building new alliances, joint ventures, franchises and licenses. Emaar Retail has developed and manages the business operations for The Dubai Mall's entertainment components including KidZania®, SEGA Republic, the Olympic-sized Dubai Ice Rink, Dubai Aquarium & Underwater Zoo and the 22-screen Reel Cinemas.

In addition, Emaar Retail has introduced the first 'Premier' Reel Cinemas Cineplex and the over 8,000 sq ft family-friendly Njoy concept at Dubai Marina Mall as well as a 10-screen Reel Cinemas at The Beach. The company will continue to explore opportunities for developing leisure assets across the region.

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