



EVERYONE IS HEADING TO THE WORLD'S LARGEST LIVING CORAL REEF AQUARIUM

PROJECT NAME: Captive breeding and growth rate data collection of the Olive Sea Snake (*Aipysurus laevis*)

PROJECT DATES: 29th April 2017 – ongoing

PROJECT LEADERS: Hamish Tristram and Callum White.

PROJECT FOCUS: Records of Olive Sea Snakes being born in captivity are difficult to find. In the wild, juvenile Olive Sea Snakes are rarely found meaning there is little data on the growth rates of this species, as well as behavioural traits. On April 29th, 2017 we were surprised to discover our female sea snake had successfully given birth to 3 sea snakes, allowing us an opportunity to capture growth rates and behavioural traits of this elusive species.

PROJECT AIMS:

- To successfully breed captive olive sea snakes.
- Record monthly growth rates, over their first year. The morphometrics recorded include, total lengths (from snout to tip of tail), snout vent lengths (from tip of snout to vent / cloaca), and total weight (grams). The data will indicate the rate at which these animals grow, and shed light upon the approximate age of sexual maturity. This data will assist the management of this species in captivity, and influence the conservation of wild populations.

PROJECT BACKGROUND: The two adult Olive Sea Snakes were initially captured by a licensed, sustainable collector. Upon arrival at Reef HQ Aquarium, the male was a yearling, and the female was estimated to be 3 years of age. Over the subsequent years, mating and courtship was observed between the pair, but did not result in any offspring. After four years on display this changed when 3 juvenile sea snakes were spotted in the display tank. These large babies, up to 60 cm in length and weighing 100 grams, were relocated to a small, 140 litre tank, whereby feeding and data collections commenced.

PROJECT OUTCOMES:

- At the conclusion of their first year, these juvenile sea snakes had grown 20-30cm and put on 200-300 grams. At this growth rate, we estimate sexual maturity would occur at around three years of age.
- All three juveniles were sexed as females. Unfortunately, there were no males within this litter to compare data with.
- Two of the juvenile females were relocated to Cairns Aquarium, to assist with genetic diversity of future breeding trials. One remains at Reef HQ Aquarium.

PROJECT MOVING FORWARD: A year after our first successful captive breeding of sea snakes, our female sea snake gave birth again, this time to two babies on 10th May, 2018. Again, they have been separated and data will be collected over their first year. Sex will be determined and the data will be compared to the previous litter to identify similarities or differences.

All the data collected has been tabulated and recorded in a scientific paper form. Data from the most recent juveniles will be added to this paper, and at its conclusion, attempts will be made to publish this paper and make it available to the broader scientific community.



Juvenile, litter April 2017, at one years of age.



Juvenile, litter May 2018. © Reef HQ Aquarium.

