

In conversation with the Young Marine Biologists, July 2021



Organised by: Marine Conservation Group, Nature Society (Singapore)

Reported by: Zachary Chong, NSS Intern

This online event targeted for the young audience, aged 5 to 16 that happened on 4th and 5th July, 2021 was organised by NSS members cum volunteers, Lisa Lim and Cheryl Lao who are both passionate educators. They wish to inspire young children and youths to become good stewards of nature, hoping that the younger generation can be engaged through such programmes. Lisa and Cheryl believe that these online sessions can spark the young participants' excitement and instill awareness about our marine environment and biodiversity, encouraging them to care for wildlife and our natural resources.

The event was organised on behalf of the Marine Conservation Group (MCG), a Special Interest Group of the Nature Society (Singapore), where Lisa volunteers actively and gives her support to marine conservation works. In this event, young students who formed the panelists had the opportunities to be engaged with marine experts from various disciplines. The panelists impressed the audience with their knowledge on the various marine topics presented and discussed with their outstanding conversational skills. A total of 6 sessions in this series were organised and they focused on some

fascinating groups of marine animals - Seahorses, Sea Stars, Sea Anemones, Giant Clams, Sea Turtles and Sharks.

Seahorse: 4 July 11AM-12 PM

This conversation was opened by Ms Sam Shu Qin (better known as Sam), with a game - Seahorses' Hide-and-Seek played with the three enthusiastic young panelists. Sam is a marine biologist cum coral scientist who works at the Reef Ecology Lab (NUS) and she engaged Zoe Chua (aged 9), Brendon Tan (aged 10) and Aadya Kumar (aged 11) in this opening session of its series. From the various photos presented in the game, it became apparent that seahorses were amazing and brilliant masters of camouflage! Thereafter, the panelists answered a variety of quiz questions by Sam, displaying their knowledge on the habits and characteristics of seahorses. Other discussions included were about seahorses' hunting pattern, the function of their unique tail and the threats that they face. The young panelists were asked if they would eat seahorses as medicine, they replied with a resounding no. As our panelist Brendon aptly commented, humans are the greatest threat to marine life like the seahorses. As such, we should be more wary about our consumption of certain animal-based products as well as the usage of non-biodegradable goods to prevent our seas from further pollution that would harm these marine animals.

Sea Star: 4 July 1PM-2PM

This conversation on sea stars was led by trained marine biologist and educator, Mr Chua Sek Chuan. He is the co-writer of *Singapore Waters - Unveiling our Seas*, published by the Nature Society (Singapore). In this session, Sek Chuan shared and talked about sea stars with Shavonne Looi (aged 9), Tan En Qi (aged 9), Evans Woo (aged 10) and Wee Ying Le (aged 7). Diving straight into the topic, he facilitated the discussion through guiding questions and colourful images of the well-loved and fascinating sea stars. Through those prompts, our young panelists were able to explore and talk on various subjects on sea stars. They amazed the audience with fun facts and tidbits on the tube feet of sea stars and further detailed the process of their sexual and asexual reproduction. Sek Chuan also took the opportunity to touch on the recent harvesting and inappropriate action taking place on Changi Beach by uninformed members of the public, highlighting the need to protect our fragile marine biodiversity. He emphasised that with increased visits to our shores, marine life could suffer due to inappropriate handling, collecting and trampling. Finally, as parting words, our panelist Shavonne made a passionate plea for us to save the sea stars for our future generations.

Sea Anemone: 4 July 3PM-4PM

Dr Nicholas Yap is a marine scientist and taxonomist, working on identifying the numerous species of sea anemones and jellyfish. In this session, Nicholas, an educator at heart, engaged with Kieran Ang (aged 13), Evans Woo (aged 10), Shavonne Looi (aged 9) and Justin Lim (aged 14) on sea anemones. He began by introducing the sea

anemone and the organisms closely related to it. Through an engaging set of slides, Nicholas detailed the wide distribution of sea anemones and explained its importance to marine life. He kept the conversation fun and lively with our panelists, introducing small trivia facts about sea anemones. After Nicholas' sharing, the panelists also shared with the audience some other fun facts that they had researched and read about. With references to the movie, *Finding Nemo* and the real life example of the boxer crab, the young panelists explained the symbiotic relationships that sea anemones have with other marine organisms. Nicholas then shared interesting photos of some sea anemones that are found in Singapore, including the recently discovered *Synpeachia temasek*, which was discovered on the shore of Changi. Once again, he highlighted the consequences of the lack of regulations and crowd control at these sites, which might render finding more of such rare anemones rather impossible.

Giant Clam: 5 July 11AM-12PM

Dr Neo Mei Lin, a marine scientist at the St. John's Island National Marine Laboratory, who did research on giant clams, briefly shared her experiences on breeding and reintroducing giant clams in Singapore. In this candid session, Mei Lin (also known as the Giant Clam Girl) engaged with Tiana Ho (aged 9), Wang Xinyu (aged 11), Samuel Low (aged 7) and Justin Lim (aged 14) on the fascinating giant clams. By posing questions, she encouraged active participation from the young panelists to share their knowledge on these intriguing clams. Through the discussions, Mei Lin and the panelists touched on the locomotion, distribution and threats to these clams, among many other subjects. From their sharing, it became apparent that the number of giant clams that survive to maturity is extremely low. Moreover, it was learnt that out of the 5 giant clam species that used to be found in Singapore, only 2 species remain - the *Tridacna crocea* and the *Tridacna squamosa*. At the end of the conversation with the panelists, Mei Lin also took some questions from the audience. Thanks to Mei Lin's sharing, participants understood the need to protect and conserve our marine spaces to protect such vulnerable species.

Sea Turtle: 5 July 1PM-2PM

Ms Loh Junyi is a PhD student, currently working on the eco-physiology of marine phytoplankton at the National University of Singapore, Department of Biological Sciences. In this session, Junyi engaged three young passionate sea turtle lovers; Tiana Ho (aged 9), Brendon Tan (aged 10) and Lim Kosei Miyano (aged 11). As an undergraduate, Junyi had the opportunity to travel to Costa Rica and witnessed deluges of sea turtles coming to the beach to nest. Upon sharing her valuable and memorable experiences on the conservation works and monitoring these turtles on site, she kick-started the panel discussion session with an ID game - *Spot the Sea Turtles* for the panelists. The young students did well in the identifications, citing the presence of flippers to be the main reason for their picks. They then proceeded to talk and share about the importance of sea turtles, detailing how they act as keystone species in the marine ecosystem. Through annotations, Junyi also conveyed key concepts visually on

how turtles lay their eggs inland. However, sea turtles also face threats. Hatchlings use moon and starlight to navigate back to sea. With the presence of artificial lighting near beaches and coastal parks, especially in Singapore context, sometimes confused hatchlings navigate to urban areas. Junyi closed the session by sharing on the local conservation effort currently managed by NParks and encouraged everyone to call NParks' hotline immediately upon sighting these hatchlings on our shores in hopes to save and protect more of these endangered sea turtles.

Shark: 5 July 3PM-4PM

Dr Jerome Kok is an aquatic biologist who was deeply fascinated about sharks during his internship to study them in South Africa. In this session on sharks, Jerome engaged with Aadya Kumar (aged 11), Jorel Phua (aged 11) and Kevin Pradeep (aged 8). Integrating his experiences in South Africa with facts, Jerome showed photos and videos for many of the points he discussed. His studies took place at Mossel Bay, where he came into contact with the iconic Great White shark. From introducing interesting facts about sharks like their countershading to the shark's transitive diet and unique dorsal fins, Jerome amazed the panelists and the audience with new facts about sharks. Short videos of a pod of orcas inducing tonic immobility in a shark intrigued viewers. Most only think of sharks as apex predators but little do they know, sharks have predators too. Young Jorel is obviously a strong advocator for "Say NO to Shark Fin Soup" and all three panelists are in consensus that one of the greatest threats facing sharks is the demand for their fins which led to wasteful and inhumane practice of shark finning. We believe that growing demand for shark fin soup could possibly push our sharks to extinction and in disrupting the eco balance of our oceans. Our young panelists were extremely excited to engage more regarding these charismatic creatures, especially Jorel who wanted the session to be extended so that he could share more.

Through this iteration of the event "In Conversation with the YOUNG MARINE BIOLOGISTS", the audience were surely impressed by the teams of enthusiastic young panelists. Their passion for marine biodiversity and conservation as well as their diligence in researching and reading up on the topics they have selected and subsequently assigned were simply inspiring. The MCG is also grateful to all marine experts who took the time to prepare and facilitate these online sessions. We would like to extend our thanks to everyone who made this event possible, including the three awesome online hosts - Yao Shuying, Dayna Cheah and Madeline Wong and those who worked behind the scenes during the event. These sessions are also available for viewing on our Nature Society (Singapore) YouTube channel.

Watch the Young Marine Biologists talk sessions on NSS's YouTube Channel [here](#).