

Sea Turtles: A Significant Brick in the Aquatic Wall

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The waters surrounding most of our planet are a rich, diverse habitat for various species of marine wildlife. One of the richest spots is that of Palawan waters.

Most often these creatures and locales serve as eye-candy for countless divers, tourists, or aquatic enthusiasts looking for a memorable getaway in exotic waters. But unbeknownst to some, these creatures are more than just for sightseeing – they play an important role in the marine ecosystem as well. One such essential but endangered animal is the Sea Turtle.

But what is a sea turtle, exactly? How does it differ from other species? Why is it essential to the aquatic ecosystem?

Unknown to many, sea turtles are believed to be far relatives of crocodiles, lizards and snakes, it being a reptile though belonging to the order Testudines. As a reptile they have hard carapace as protection mechanism, they breathe through their lungs so they can stay longer gliding through the deep waters and have a three-chambered heart. They are a wonderful sight at sea.



There are seven species of this kind known to the scientific world: the Green turtle, Loggerhead, Kemp's Ridley, Olive Ridley, Hawksbill, Leatherback and Flatback.

In Palawan, sea turtles that are often found around the province are the Leatherback, Loggerhead, and Green turtles. Mostly though, are commonly found in temperate seas throughout the world. Adults are likely to be found in coastal waters and bays, although some tend to venture out into open waters. Leatherbacks have been known to migrate as far as 3000 miles away from their nesting grounds but however far they travel, they lay and nest their eggs back to where they were hatched.

Sea turtles vary in size, with the Kemp's Ridley and Olive Ridley being the smallest, measuring as small as 55-75 cm. The largest is the Leatherback, which can grow to a size of



A turtle sneaks in to the sand beach of Ursula Island in Southern Palawan to layer eggs and are expected to be hatched by January 26, 2011.

4-6 ft. and weighing as much as 1,100 pounds. Although slow and vulnerable on land, sea turtles are agile in the water, with their flippers specially adapted for swimming. Their shells are streamlined, allowing for smooth movement underwater (Unlike the land turtle, however, they cannot retract their heads into their shell). Color generally depends on the type of species, ranging from olive-green, yellow, greenish-brown, reddish-brown, or black.

Sea turtles feed on seaweeds, small shells, sponges, squids, jelly fishes and other soft-bodied animals. They either are carnivores, herbivores or omnivores. They are said to be on clean diet pattern. In most cases, their convergence are dictated by food supply. In fact their normal travel-route depends on the line of food along the way. It is said that Palawan is one of their favorite stop-overs due to the array of sea grasses that crowns small islands and white beaches conducive for their nesting grounds.



Tourists releasing young turtles into the sea at Isla Arena Resort, Narra, Southern Palawan



Ursula Island, off the coast of Bataraza in Southern Palawan is a sanctuary for turtles. Here, turtle nesting areas are protected against egg hunters day in, day out.

Though not observed as social animals, sea turtles gather together during mating. The romance never stops as some species travel together to their nesting grounds. Once ready, the female will dig a hole in the beach and lay her eggs there; some turtles can lay as much as 100 eggs. The time it takes for the eggs to hatch depends on the species, temperature, and humidity in the nest. Most often the eggs will hatch within 40-70 days. Amazingly, temperature can determine the sex of an embryo; higher temperatures will produce more females, and vice-versa. Although there is no fixed season for turtle eggs to hatch, it has been observed that the eggs hatch often during the summer.

Under normal and good condition, eggs are hatched 100%. But

while eggs laid maybe are quite a number, the survival rate (to adulthood) are very low, pegged only at about 1 – 2%. Their growing is coupled by continuing danger as they are favorite prey to bigger sea creatures.



A Predator

Once hatched, the hatchlings head to the water in groups. When they reach the water, they continuously swim for 24-48 hours, known as the swimming frenzy which reduces encounters with predators. The safer ground is the deeper open sea. The farther they swim reduces the danger of predators. It is then that the young turtle begins its journey to adulthood, spending its first few years in the ocean rather than shallow seas.

A brick to ecological balance: Their vulnerability to predation maybe high, but this valuates to their importance in the natural world. By co-existing with other creatures, they function as an essential part of the food chain, keeping the species of other animals under control. By feeding on smaller animals such as squid, plankton, fish, shrimp and the like, they help in keeping these other animals from over-populating and ruining the balance in the ecosystem. Plant-eating turtles help keep the lower part of the sea in check by feeding on sea grass and algae; this in turn keeps the area more healthy and productive, allowing for other species like sharks and crustaceans to thrive. They are a brick to maintaining ecological balance in the aquatic world.

Another way that sea turtles function as an integral part of the environment is by laying their eggs on beaches and shorelines. By doing this, they help transfer nutrients from the ocean to coastal areas and similar habitats that have little or poor nutrient content.



They are the only marine species known to regularly transfer nutrients from the sea to coastal locales. Sea turtles also help sustain the biological diversity found in the world's oceans. Unfortunately, recent developments tend to deflect the balance beam. This once-abundant marine wonder is now slowly dying out.

Humans, the greatest threat: Documentations and records of sea turtle populations indicate an alarming decrease in number over the past few years. Culprits are: poaching, illegal fishing, and "accidental" deaths. Sadly, the Philippines – including Palawan – is not an exception. Illegal fishing boats from neighboring countries such as China make their way through our waters to search for sea turtles.

The helpless creatures are hunted for their meat, shells, and by-products. Oil extracted from sea turtles is sold as medicine, their meat for food, and their shells for decorative purposes.

Eggs are a wanted delicacy in some foreign countries, and thus people have raided turtle nests for their contents. Despite the many sharks, salt-water crocodiles and other sea-dwelling predators of these turtles, man has become a serious threat to these gentle creatures.

Pollution and industrialization are also common enemies for the sea turtle. Many of these turtles have drowned from being caught in discarded nets, crab-pots, and man-made garbage. Carcasses of Leatherbacks that were opened up reveal that the animals accidentally ate plastic wrappers – mistaking them for small prey such as jellyfish. Oil spills and waste dumps in the ocean have also endangered the turtles as well as destroyed their habitats, which acts in a chain-reaction manner.



A Vietnamese fishing vessel was apprehended poaching in the territorial waters off Palawan with hundreds of dead sea turtles on board.

With their habitats under threat, prey that is normally found in their feeding grounds become scarce and thus leaves the animals hungry. Propeller accidents are also a cause of the population decline, with turtles getting caught and injured in boat propellers.

In a recent encounter, the WWF headed by Ms. Mavic Matillano, while doing their monitoring works in the waters of Paly island in taytay, Palawan, her group chanced to a dying turtle afloat. After efforts of reviving the huge turtle, it eventually died. When checked, it died due to undigested plastics that hardened inside its stomach choking the creature to death.



Solidified guts from plastic garbage accidentally eaten by turtles as jellyfish became the cause of death of an 85 cms. turtle in Paly Island, Taytay, north of Palawan. (WWF Photo)

Reversing the Trend, Man as its Saviour: Fortunately, amidst these dangers to their survival, actions have been taken to help preserve sea turtles and maintain their existence in the oceans. In the Philippines, certain laws and policies have been made ensuring the protection of sea turtles, such as:

Executive Order No. 542, which recognizes the formation of the Pawikan Conservation Project, which exists to preserve the population of sea turtles. Republic Act No. 9147 (also known as the Wildlife Resources Conservation and Protection Act), which prohibits the capturing, killing, destroying nests, collecting eggs from nests, harming, illegal possession, trading, selling by-products, and the domestic and/or international smuggling of endangered species including sea turtles. Penalties include fines of P 100,000 – P 1,000,000 or imprisonment for 6 to 12 years. In Palawan, the Wildlife Act is being implemented by the Palawan Council for Sustainable Development (PCSD). As of late, it has re-organized its enforcement arm to intensify enforcement activities, and heighten its information and education campaign to check anthropogenic causes to sea turtle population decline, enticing the human population to handle turtles with care.

Republic Act No. 8550 (Fisheries Code of 1998), which prohibits catching of endangered marine wildlife, including sea turtles. Penalties include fines of P 120,000 or imprisonment for 12 years.

With the climate change aggravating vulnerabilities of turtles, and other sea-creatures, experts, scientists and advocates alike unify in raising the banner of environmental protection higher: Not to trash the seas with plastics as they are not jelly fish, not to eat meats of turtles (or other sea mammals) as they are not aphrodisiacs, not to preserve its carapace as it does not crown you with good status symbol, not to poison the seas as it will wipe out not only coral reefs but sea grasses disorienting travels of turtles and other dependent animals.



In short, this is a time to heed the call of nature. Protecting turtles mean protecting the future of the seas and the humans as well. It is hard to imagine a world without these creatures. They are now at risk from disappearing – it is our job to make sure they don't.