# SEA TURTLES

## FACTS ABOUT SEA TURTLES



- Sea turtles are some of the most ancient creatures on Earth, existing for more than 100 million years and even surviving the extinction of the dinosaurs 65 million years ago.[260]
- Sea turtles are marine reptiles, which breathe air to survive and are found in tropical and subtropical seas around the world. Their protective shells are made up of an upper section, called the carapace, and a lower section called the plastron. Sea turtles do not have teeth, but instead, have a modified "beak" suited for their particular diet.[261]
- There are seven different species of sea turtles that live in our oceans: Hawksbill Turtle, Kemp's Ridley Turtle, Leatherback Turtle, Loggerhead Turtle, Olive Ridley Turtle, Flatback Sea Turtle, and the Green Turtle.[262]
- Sea turtles' range in size, shape, and color. The smallest species of sea turtle is the Kemp's Ridley, weighing only up to 100 lbs. (45 kg.), and the largest species of sea turtle is the Leatherback, weighing up to 1,500 lbs. (680 kg.).[263]
- Each species has its unique diet: The Green sea turtle feeds on seagrasses, Leatherbacks feed on jellyfish and other soft-bodied animals, while Loggerheads feed on crabs, clams, and other heavy-shelled animals.[264]



- Female sea turtles lay their eggs on land in sandy coastal areas, the majority of which return to the same beach they were born to nest. Nesting times for sea turtles typically occur from April through October, with most females nesting at least twice within the mating season.[265] Besides their nesting activities, sea turtles will spend their entire lives at sea.
- Within the past 100 years, the population of sea turtles has rapidly declined due to demand for sea turtle eggs, meat, skin, and shells. Today, the Green, Leatherback, and Hawksbill turtles are classified as endangered in the United States, while the Loggerhead and Olive Ridley turtles are classified as threatened.[266]

## WHY WE NEED TO PROTECT SEA TURTLES

**Role in the Ecosystem:** Sea turtles are an essential link in the marine ecosystem. "Sea turtles—even at diminished population levels—play an important role in ocean ecosystems by maintaining healthy seagrass beds and coral reefs, providing key habitat for other marine life, helping to balance marine food webs and facilitating nutrient cycling from water to land."[267] By grazing on seagrass, which helps increase the productivity and nutrient content of the grass, and foraging within coral reefs, sea

turtles help to maintain healthy habitats for other vital species, such as lobster, shrimp, and tuna.[268] Sea turtles that feed on jellyfish play a pivotal ecological role as a top predator for jellyfish and make a major contribution to jellyfish population control.[269] Seagrass beds and coral reefs, which are kept healthy by sea turtle activity, act as nurseries for a variety of species of fish, shellfish, crustaceans, and other marine life that humans depend on for food.

**Economic Contributions:** Sea turtles serve as a large tourist attraction in many tropical and sub-tropical areas. In 2009, it was estimated that 175,000 people took part in sea turtle tours in more than 40 countries. For one national park in Costa Rica, marine turtle tourism brings in $6.7 million annually.[270]

## THREATS TO SEA TURTLES



**Commercial Fishing:** Every year, thousands of sea turtles are accidentally caught in nets and fishing lines, becoming fishing industry bycatch – an unintended catch of a non-target species. When trapped in these lines and nets, sea turtles are unable to reach the surface to breathe, and as a result, many drown.[271]

**Habitat Loss:** Ever-expanding coastal development and human traffic on beaches continually disrupts sea turtle nesting. Destruction or deredation of vital beaches that sea turtles use as nesting grounds causes a considerable threat to sea turtles and their ability to nest and reproduce successfully.[272]

**Plastic Pollution:** Plastic pollution is another serious issue that harms sea turtles. Sea turtles often mistake plastic bags for jellyfish or other food. Once ingested, the plastic will block their intestines and become life-threatening.[273] Often, sea turtles will become entangled in plastic netting or other marine debris floating in the ocean. This can cause the turtles to drown if they are unable to get oxygen from the surface.

**Climate Change:** The gender of sea turtles is determined by how hot or cold the surrounding environment is while they are in their eggs. Warmer temperatures result in more female hatchlings, while colder temperatures will produce more male hatchlings. With climate change causing, on average, warmer and warmer temperatures, there is concern that sea turtle populations will be at risk due to more females being born than males and reproduction rates going down as a result.[274]

## HOW TO HELP SEA TURTLES

**Turn Out Visible Lights:** If you live on or near the beach, turn off any lights that could be seen from the shore and close any blinds or draperies. Sea turtle hatchlings rely on the moonlight to find their way to water after hatching. Along with discouraging adult females to nest on the beach, artificial lights can also confuse hatchlings and cause them to head in the wrong direction, putting them at risk from predators and other dangers.[275]

**Prevent Ocean Pollution:** Sea turtles can ingest or become entangled in plastics and other debris floating in the ocean. Next time you are at the beach, pick up any trash or litter you see lying around and dispose of it properly, specifically plastic bags and balloons which sea turtles often mistake for food. Every piece of trash you pick up means a cleaner ocean for sea turtles to live in. Also, be aware of what chemicals you are using on your lawn and at home. Harsh and toxic chemicals can wash into the ocean, killing plants and animals along the way. Try looking for safer biodegradable alternatives.[276] To help **End Plastic Pollution** download our toolkits.

**Be Aware of Nesting Areas:** If you see any designated nesting areas or nests that are marked off along the beach, be sure to give them plenty of space to avoid trampling or destruction of the nest. Noise and lights from people can disturb female turtles as they are trying to lay their eggs. Do not disturb female sea turtles as they are emerging from the ocean and looking for a place to nest.[277]

**Support Sustainable Fisheries:** Fishing sustainably requires the utilization of the right kind of fishing gear and to avoid bycatch. By buying fish and their products from certified sustainable sources, you can help ensure that turtles are protected. The recently updated standard requires in assessment or certified fisheries to consider options for minimizing mortality of unwanted catches. A fishery will need to adopt a new measure if it is found to be more effective at minimizing the unwanted catch mortality and is practical and not cost prohibitive to implement. To learn more about the different types of eco-labeling, click here.

**Test your knowledge:** about the threats to ocean ecosystems with our Oceans Plastic Pollution Quiz.

# ADDITIONAL RESOURCES

## ARTICLES/BLOGS/READINGS

**Giant tortoise believed extinct for 100 years found in Galápagos** – *The Guardian*

http://bit.ly/2SU6V2b

A living member of species of tortoise not seen in more than 110 years and feared to be extinct has been found in a remote part of the Galápagos island of Fernandina. Investigators think there may be more members of the species on the island because of tracks and faeces they found. The team took the tortoise, which is probably more than 100 years old, to a breeding centre for giant tortoises on Santa Cruz Island, where it will stay in a specially designed pen.

## VIDEOS

**Baby Turtle's First Steps** – *BBC*

https://www.youtube.com/watch?v=HYF_vUBFSsA

This video showcases the the mass nesting phenomenon of olive ridley sea turtles in Costa Rica.

## STORYTELLING

**TED-Ed: The Survival of the Sea Turtle** – *Scott Gass*

https://www.youtube.com/watch?v=t-KmQ6pGxg4

Watch the miraculous journey of infant sea turtles as these tiny animals run the gauntlet of predators and harsh conditions. Then, in numbers, see how human behavior has made their tough lives even more challenging.

## OTHERS WORKING ON THIS

**Sea Turtle Conservancy**

https://conserveturtles.org/

The organization's research and conservation initiatives have been instrumental in saving the Caribbean green turtle from immediate extinction, as well as raising awareness and protection for sea turtles across the globe with nearly 60 years of experience in national and international sea turtle conservation, research and educational endeavors.

## REPORTS

**Assessment of Sea Turtle Status and Trends** – *National Academy of Sciences*

http://bit.ly/2SPtAN9

This National Research Council report reviews current methods for assessing sea turtle populations and finds that although counts of sea turtles are essential, more detailed information on sea turtle biology, such as survival rates and breeding patterns, is needed to predict and understand changes in populations in order to develop successful management and conservation plans.

## HELP US DISSEMINATE THIS CAMPAIGN TO YOUR NETWORKS:

We want to know what you are doing to Protect our Species! If you take part in a community event for species conservation or if you and your community organize for Earth day 2019 we want to hear about it. Take pictures and tell stories and share them on social media using the hashtags **#ProtectourSpecies #EarthDay2019**, and tag us **@EarthDayNetwork**. **Sign up to our newsletter** to receive updates on our campaigns and information on how you can get involved.