



MYSTIC AQUARIUM

Green Sea turtle *Chelonia mydas*



Size: Green sea turtles are the largest of the hard-shelled sea turtles. Adults typically reach 3 to 5 feet in length and weigh between 200 and 500 pounds.

Appearance: Green and hawksbill sea turtles are known for the beautiful pattern on their shells. The “green” in the green sea turtle’s name is not a reference to their shell but rather to the color of their fat, tinted by chlorophyll from their leafy diet. They have a smooth, unhooked upper beak, and a serrated lower jaw —perfect for trimming seagrass and algae (seaweed.)

Range/Distribution: Found worldwide in tropical and subtropical oceans, with some seasonal wanderers that follow major ocean currents, venturing into temperate waters.

Habitat: Green sea turtle habitat shifts dramatically with age. Hatchlings and early juveniles spend their formative “lost years” drifting in the open ocean, sometimes seeking shelter in floating seaweed mats. As they grow, older juveniles and adults transition to coastal environments, settling in food-rich, calm areas such as shallow seagrass meadows, coral reef flats, mangrove bays, and lagoons. Adult females will nest on sandy beaches about every 2 to 3 years to dig nests and lay their eggs. Some populations return to the same beach that they hatched from for nesting!

Diet/Prey: The only true herbivores among sea turtles, adult greens feed on seagrass beds and graze on algae, as well. Juveniles start off as omnivorous, feeding on crustaceans, jellyfish, and fish eggs before switching to a plant-based menu.

Predators: Eggs and hatchlings are easy prey for ghost crabs, gulls, herons, and reef fish, while human impacts like egg poaching for consumption further reduce survival chances. Juveniles are hunted by reef sharks, groupers, and other large predatory fish. Adults face predation primarily from tiger and bull sharks, with occasional orca attacks and are also subject to poaching worldwide.

Reproduction: They mature between 20–40 years old. Females lay 2–7 nests per season, each with 75–200 eggs. Incubation takes 45–75 days, and sex is temperature-dependent (hot sand = more females). While most nest in tropical regions, a few pioneers have ventured north—like a very rare but notable nest on Nantucket Island, MA, in September 2022. Their survival odds are only about 1 in 1,000 hatchlings making it to adulthood.

Conservation Status: Listed as Endangered on the IUCN Red List and as Threatened or Endangered under the U.S. Endangered Species Act (depending on the population). Killing sea turtles or collecting their eggs is banned under U.S. and international law.

Threats: Green sea turtles face multiple natural and human-induced threats throughout their lives. Human activities, such as artificial lighting, off-road vehicles, and poaching, pose additional risks on nesting beaches. Sea turtles at all stages of life must navigate away from predators, as well as avoid increasingly common human threats like plastic ingestion, boat strikes, and entanglement in fishing gear. However, the greatest challenges come from habitat destruction, illegal harvesting, fisheries bycatch, (accidental catch of non-targeted animals,) and climate change, including skewed sex ratios caused by rising sand temperatures.

What is being done? Shrimp and other shellfish fisheries have implemented Turtle Excluder Devices (TEDs) in their bottom trawling nets in the U.S. and other countries to help reduce bycatch. On nesting beaches, protection efforts include enforcing dark-sky lighting ordinances, monitoring nests, and relocating those at risk from flooding, predation, or human interference in “head-start” programs. Mystic Aquarium along with other licensed colleagues across the U.S. help rescue, rehabilitate, and release sea turtles in need. Additionally, everyone can help by reducing single-use plastic and participating in clean-ups of waterways and beaches to prevent plastics from entering the ocean.

Fun Facts:

- A resting adult green sea turtle can remain underwater for up to five hours by dramatically slowing its heart rate—sometimes to just one beat every nine minutes.
- Hawaiian green sea turtles, known locally as “honu,” undertake round-trip migrations of up to 750 miles between their feeding grounds and remote nesting atolls in the unpopulated Northwestern Hawaiian Islands!