

The Kid's Times:

Volume I, Issue 3

Leatherback Sea Turtle



A female leatherback heads back to sea after laying her nest.

Sea turtles are graceful saltwater reptiles, well adapted to life in their marine world. With streamlined bodies and flipper-like limbs, they are graceful swimmers able to navigate across the oceans. When they are active, sea turtles must swim to the ocean surface to breathe every few minutes. When they are resting, they can remain underwater for much longer periods of time.

How did the leatherback get its name?

Leatherbacks are named for their tough, oil-saturated, rubbery skin, which is strengthened by a **mosaic** of small bones beneath the skin. This gives the turtle a leathery appearance and feel. Leatherbacks are the only sea turtle species that lack scales and a hard shell.

What do they look like?

Leatherbacks are the largest of the sea turtles. Adult leatherback turtles are 4-8 feet long and weigh 650-1,300 lbs. They are mostly black on top with white and pink spots

on the head, neck, and **carapace**. The **plastron** is mottled with pink, white and black. They have two tooth-like **cusps** on either side of the upper jaw. Leatherback hatchlings are 2-3 inches in length with **fore flippers** as long as their bodies and unique white striping along the ridges of their backs.

There are seven ridges running down the shell of a leatherback as it tapers to a blunt point at the rear. Along with their very powerful fore flippers, which are longer than those of other sea turtles, these ridges streamline the body so they can move easier in the water.

Where do they live?

Because leatherbacks are such strong swimmers, they are able to make long distance **migrations** across the Atlantic, Pacific and Indian oceans from their feeding grounds to their nesting beaches. Leatherback turtles are regularly found much further north than other sea turtle species. As cold-blooded reptiles, a leatherback turtle's body temperature should be the same as the temperature of the water, but they have been reported in water temperatures below 43°F. No other reptile has ever been known to remain active at such a low temperature. Due to their large size and a special characteristic of their **circulatory system**, leatherbacks are able to conserve body heat and survive in cooler water temperatures.

How long do they live?

It is thought that leatherbacks grow faster

than hard shelled turtles and reach maturity sooner, but very little is known about their life expectancy. They are likely long-lived.

What do they eat?

Leatherback turtles love jellyfish! It seems very unlikely that such a large turtle would eat something so small that consists mainly of water, but they eat tons of them.

Leatherbacks also eat sea squirts and other soft-bodied animals. They have scissor-like jaws and a mouth lined with stiff spines that point backwards to help them swallow their soft prey.

When and where do females lay their eggs?

Female leatherbacks return to their **natal beaches** every 2-3 years, where they deposit an average of 5-7 **clutches** at 9-10 day intervals. In the U.S. and Caribbean, nesting season lasts from March to July.

Female leatherbacks nest at night in **tropical** and **subtropical** beaches in places such as Malaysia, Mexico, Puerto Rico, Suriname, French Guyana, Trinidad, the Virgin Islands, Costa Rica, and Florida.

Female leatherbacks dig a large deep body pit to lay their eggs in deep nest egg chambers. In the process create a large mound



Leatherback hatchlings emerging from the nest.

Cerys De Witt



Matthew Godfrey

A female leatherback lays a clutch of eggs.

of sand next to the nest, a nesting leatherback will disturb a huge area on the beach and leave behind long, circling tracks that look like the tracks from a small tank! By the time a leatherback is finished nesting, it is very difficult to find where the eggs are located.

Leatherbacks will lay 60-100 eggs, but only about two-thirds of those will hatch. The eggs that may hatch are a little smaller than a ball used to play pool. The remainder of the eggs are smaller, without yolks and will never develop. Scientists do not know the purpose of these smaller eggs. The eggs must **incubate** for 60-70 days and then the hatchlings are born and make their way to the ocean.

Who are their predators?

Small hatchlings are much more susceptible to predators than adults. Crabs and raccoons feed on the hatchlings when they first emerge out of their nest on the beach, and fish and seabirds are a threat to hatchlings in the water. Only sharks are large enough to prey upon adult sea turtles. Their flippers are especially vulnerable. Man is also a predator of the leatherback turtle.

How many are there?

While the total number of leatherback turtles in all of the world's oceans is unknown, scientists do know that there are many fewer leatherbacks today than there were in recent history.

As with other sea turtle species, the best way to monitor population trends is to count the number of nests that are laid on the nesting beaches. In recent decades, the number of nesting leatherbacks has seriously declined on many important nesting beaches. With fewer hatchlings produced and many threats facing turtles in the water, the plight of the leatherback is critical.

Why are they in trouble?

Leatherback turtle populations are severely impacted by humans in many countries who kill nesting females for meat and oil and dig up the eggs for food. Human development and construction also threaten many important nesting beaches. Because of their long flippers, leatherbacks are at high risk for entanglement and drowning in certain kinds of fishing gear and **marine debris**. Because they sometimes spend a lot of time at the surface, leatherbacks are also frequently struck and injured or killed by boats and propellers.

What is being done to help them?

Leatherback turtles were listed as endangered in 1970. This made it illegal to kill a leatherback turtle or take eggs from the nests. Since 1972, the United States government has protected leatherback turtles, as well as others, through regulations enacted under the Endangered Species Act (ESA). Since that time, their numbers have continued to decline and today the situation for the leatherback turtle is very critical.

The Convention on International Trade of Endangered Species (CITES) also forbids the trade of any sea turtle products on the international market. In certain times and

places trawlers (fishing or shrimp boats) are now required to have larger Turtle Excluder Devices (TED's) that will allow larger turtles like leatherbacks to escape from the nets when they are caught. To better understand how we can protect leatherback turtles, researchers are using satellite tags to track turtles to learn more about their behavior and movements. Countries around the world are starting to work cooperatively to address global threats to leatherbacks and to better protect leatherbacks throughout the world's oceans.



Nova Scotia Leatherback Turtle Working Gp.

Because of their large size, leatherbacks can be found in deep, open waters.

What can you do to help sea turtles?

It is possible for anyone to help support sea turtle conservation. You can help participate in beach cleanups or attend a public sea turtle walk. You can do a presentation on turtles for a class to raise awareness, adopt a turtle, or follow a sea turtle telemetry project. These projects track turtles in the oceans to see where they travel and spend their time. You can help just by remembering not to release balloons or throw trash into the ocean. You can help spread the word to your family and friends that sea turtles are an important part of our environment and should be protected.

Glossary:

Carapace: Top side/shell of a sea turtle

Circulatory system: Structures that send blood around the body

Clutch: Group of eggs in a nest

Cusps: Projections, like teeth, made from skin

Endangered: Animal close to extinction

Fore flippers: Flippers closer to the head, one on each side

Incubate: To warm the eggs by body heat

Marine debris: Trash in the ocean

Migration: To move from one place to another based on the season

Natal beach: Beach where a turtle is born

Plastron: Bottom side of a turtle

Threatened: Animal close to becoming endangered

Trawler: Fishing boat that uses a large cone shaped net dragged behind the boat to catch fish or invertebrates

Tropical: Area of the world between the Tropic of Cancer and the Tropic of Capricorn

Subtropical: Area of the world next to the tropics



NOAA's National Marine Fisheries Service
Office of Protected Resources
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Molly Harrison 2005