

Factsheet

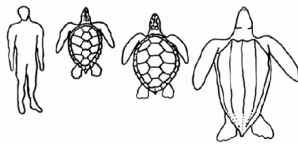
Leatherback Turtles

Introduction

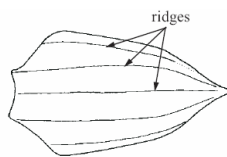
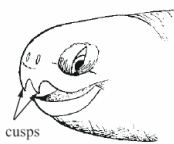
Leatherback turtles (*Dermochelys coriacea*) are descendants of a sea turtle species that evolved 110 million years ago. In the Western Pacific Ocean, their numbers have declined by 95% since the 1980s, due to excessive egg harvesting and from being caught in open-ocean (pelagic) and coastal fisheries (including longline, gillnet and trawl fisheries). The leatherback is listed on the IUCN Red List as "critically endangered," and listed in Appendices I of CITES and the CMS.¹

Biology and Ecology

The leatherback turtle is the largest sea turtle in the world. Individuals have been known to reach up to 1,000 kilograms (or 1 tonne) in weight, but usually weigh between 300-500 kilograms, with a maximum length of between 165 and 190 cm.



The leatherback turtle has a different type of mouth than other sea turtles; it has two sharp-edged cusps on its upper jaw, and a single, pointed central hook that fits between the two upper cusps when the mouth closes on its lower



jaw. The leatherback turtle lacks the hard shell of other sea turtles; instead it is covered in a rubber-like, leathery skin that has five long ridges running down its back. Flippers of the leatherback turtle are large and paddle-shaped, which helps it to swim vast distances across the oceans. As with other turtle species, mature males are distinguished from females by a longer tail.

The colour of the leatherback turtle is black, with scat-



tered pale blotches and spots becoming more dense on its belly. These spots turn pinkish when the turtle is out of the water as its blood flows to the surface to cool the skin. Pinkish blotches can sometimes be seen on the neck, shoulders, and groin. Females have a pink area on top of head. Hatchlings and juveniles have more distinct white/pale spots.

The age of sexual maturity (or reproductive age) for leatherback turtles is between 12-15 years (in comparison green turtles take about 50 years and hawksbill turtles take around 30 years), with a life expectancy of between 35-40 years. Leatherback turtles nest every 2-4 years. In the Western Pacific, the nesting season for leatherback turtles is usually between October and March. In one season, a leatherback turtle will nest, on average, three times and lay 100 eggs in each clutch. The average female leatherback turtle will lay approximately 2,100 eggs in her lifetime. Hatchlings will emerge 55-90 days after nesting if nests are left undisturbed.

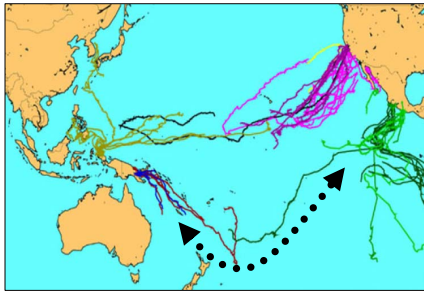
Diet

The diet of the leatherback turtle consists mostly of jellyfish, but include other gelatinous organisms such as sea squirts, salps and pyrosomas. It is thought that leatherback turtles need to eat at least 50 large jellyfish every day (the equivalent of about 200 litres or 44 gallons) to stay healthy. Leatherback turtles will regularly dive to great depths and are capable of reaching depths of up to 1,000 metres.

Nesting Locations

In the Western Pacific Ocean, leatherbacks nest in Australia, Papua New Guinea, Solomon Islands, and Vanuatu, with a few records of nestings in other countries.

¹ CITES Appendix I lists species that are the most endangered among CITES-listed animals and plants. These are threatened with extinction and CITES generally prohibits commercial international trade in specimens of these species. However trade may be allowed under exceptional circumstances, e.g. for scientific research. Appendix I of the CMS lists migratory species which are endangered.



Migration

Leatherback turtles have the most extensive migration range of any living reptile. Satellite tagging has shown that turtles nest-

ing as far apart as Papua New Guinea and Costa Rica share common foraging grounds in the oceanic areas of the Southwestern Pacific.

Threats

Harvesting and predation

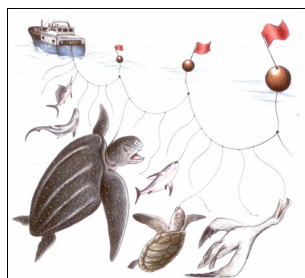
Throughout the world where leatherback turtles nest, people consume their eggs and in some places kill them for their meat, oil and leathery skin. Occasionally, leatherback turtles are killed for fun. Many nests are lost to predation by dogs and pigs.

Coastal development

Because leatherback turtles nest on beaches, like all species of sea turtles, sometimes these are destroyed by coastal development because human beings also want to live and play on these same beaches. In many places, this can be seen by the expansion of villages as human populations increase. In other parts of the world, leatherback turtle beaches are affected by dredging, ship and small boat traffic and construction. Bright lights and pollution from these activities disrupts nesting behavior and confuses hatchlings when they emerge from the nest, often resulting in high numbers of mortalities.

Fisheries impacts.

Leatherback turtles are also caught accidentally on fishing lines and in fishing nets by fishing boats that are fishing for tuna, swordfish and other large pelagic predatory fish. When this happens they often die from drowning.



Pollution

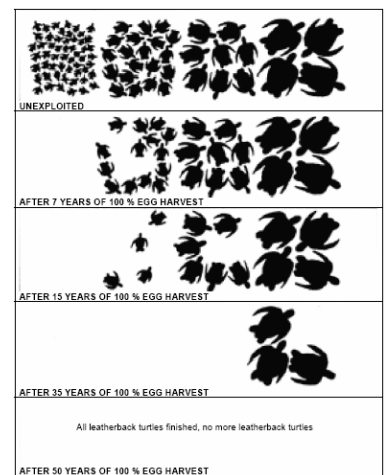
Marine pollution like plastics, old fishing gear and other rubbish can kill leatherback turtles if they eat them or get tangled in them. Chemical pollutants and oil in the water can also make leatherback turtles weak and susceptible to disease.

Climate change

Global warming can impact on leatherback turtle populations through sea level rise and increased storm and cyclone activity that erodes and changes the structure of nesting beaches. Because the temperature of the sand determines the sex of the hatchlings, global warming can also change leatherback sex ratios.

Decline

Because of these threats, leatherback turtles in the Western Pacific Ocean are facing the possibility of extinction. It is not until many years later, even decades, that threats manifest themselves in fewer turtles arriving to nest. When eggs are taken from the beach, less hatchlings make it to the sea, meaning fewer adults coming back to nest. Thus begins a downward population spiral that can ultimately lead to extinction.



Conservation Measures

Given the current state of the Western Pacific Ocean leatherback turtle population, it is best that all human harvest of leatherback turtle eggs stops and predation by pigs and dogs is brought under control. Countries in the region can also help protect leatherbacks by requiring that foreign long-line fishing vessels use "turtle-friendly" fishing gear when fishing in their waters.

SPREP is actively engaged in leatherback conservation and monitoring through its regional marine turtle action plan.

Information in this fact sheet adapted from Leatherback Turtles: Their Future Is in our Hands, by Jeff Kinch for SPREP, 2008.



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