



# U.S. Fish & Wildlife Service

## Leatherback Sea Turtle (*Dermochelys coriacea*)

**FAMILY:** Dermochelyidae

**STATUS:** Endangered throughout its range (*Federal Register*, June 2, 1970).

**DESCRIPTION:** The leatherback is the largest, deepest diving, and most migratory and wide ranging of all sea turtles. The adult leatherback can reach 4 to 8 feet in length and 500 to 2000 pounds in weight. Its shell is composed of a mosaic of small bones covered by firm, rubbery skin with seven longitudinal ridges or keels. The skin is predominantly black with varying degrees of pale spotting; including a notable pink spot on the dorsal surface of the head in adults. A toothlike cusp is located on each side of the gray upper jaw; the lower jaw is hooked anteriorly. The paddle-like clawless limbs are black with white margins and pale spotting. Hatchlings are predominantly black with white flipper margins and keels on the carapace. Jellyfish are the main staple of its diet, but it is also known to feed on sea urchins, squid, crustaceans, tunicates, fish, blue-green algae, and floating seaweed.

**REPRODUCTION AND DEVELOPMENT:** In the United States, nesting occurs from about March to July. Female leatherbacks nest an average of 5 to 7 times within a nesting season, with an observed maximum of 11 nests. The average internesting interval is about 9 to 10 days. The nests are constructed at night in clutches of about 70 to 80 yolked eggs. The white spherical eggs are approximately 2 inches in diameter. Typically incubation takes from 55 to 75 days, and emergence of the hatchlings occurs at night. Most leatherbacks remigrate to their nesting beaches at 2 to 3-year intervals. Leatherbacks are believed to reach sexual maturity in 6 to 10 years.

**RANGE AND POPULATION LEVEL:** The leatherback turtle is distributed worldwide in tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans. It is also found in small numbers as far north as British Columbia, Newfoundland, and the British Isles, and as far south as Australia, Cape of Good Hope, and Argentina. Recent estimates of global nesting populations indicate 26,000 to 43,000 nesting females annually, which is a dramatic decline from the 115,000 estimated in 1980. This is due to exponential declines in leatherback nesting that have occurred over the last two decades along the Pacific coasts of Mexico and Costa Rica. The Mexico leatherback nesting population, once considered to be the world's largest leatherback nesting population (65 percent of worldwide population), is now less than one percent of its estimated size in 1980. The largest nesting populations now occur in the western Atlantic in French Guiana (4,500 to 7,500 females nesting/year) and Colombia (estimated several thousand nests annually), and in the western Pacific in West Papua (formerly Irian Jaya) and Indonesia (about 600 to 650 females nesting/year). In the United States, small nesting populations occur on the Florida east coast (35 females/year), Sandy Point, U.S. Virgin Islands (50 to 100 females/year), and Puerto Rico (30 to 90 females/year).

**HABITAT:** The leatherback is the most pelagic of the sea turtles. Adult females require sandy nesting beaches backed with vegetation and sloped sufficiently so the crawl to dry sand is not too far. The preferred beaches have proximity to deep water and generally rough seas.

**CRITICAL HABITAT:** 50 CFR 17.95 U.S. Virgin Islands – A strip of land 0.2 miles wide (from mean high tide inland) at Sandy Point Beach on the western end of the island of St. Croix beginning at the southwest cape to the south and running 1.2 miles northwest and then northeast along the western and northern shoreline, and from the southwest cape 0.7 miles east along the southern shoreline.

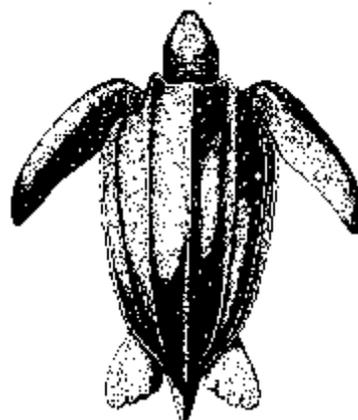
**REASONS FOR CURRENT STATUS:** The crash of the Pacific leatherback population, once the world's largest

population, is believed primarily to be the result of exploitation by humans for the eggs and meat, as well as incidental take in numerous commercial fisheries of the Pacific. Other factors threatening leatherbacks globally include loss or degradation of nesting habitat from coastal development; disorientation of hatchlings by beachfront lighting; excessive nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; and watercraft strikes.

**MANAGEMENT AND PROTECTION:** It is imperative that hatchling production be maximized for the remaining leatherback nesting that occurs along the extensive Pacific coasts of Mexico, Costa Rica, and other Central American countries. Due to the long range migratory movements of sea turtles between nesting beaches and foraging areas, long-term international cooperation is absolutely essential for recovery and stability of nesting populations. Since the 1998-99 nesting season, the Fish and Wildlife Service has provided funding annually to assist recovery efforts for the leatherback in Mexico and Costa Rica, including support for nesting surveys and nest protection. In the Southeast United States and U.S. Caribbean, major nest protection efforts and beach habitat protection are underway for most of the significant nesting areas. In addition, research is underway to develop technologies to minimize leatherback mortality associated with the longline fishery. Many coastal counties and communities have developed lighting ordinances to reduce hatchling disorientations. Important U.S. nesting beaches have been and continue to be acquired for long-term protection.

**SUGGESTED REFERENCES:**

- Behler, J.L., P.C.H. Pritchard, and A.G.J. Rhodin (eds.). 1996. Special Focus Issue: The Leatherback Turtle, *Dermochelys coriacea*. Chelonian Conservation and Biology 2(2):137-324.
- Eckert, K.L., K.A. Bjorndal, F.A. Abreu-Grobois, and M. Donnelly (eds.). 1999. Research and Management Techniques for the Conservation of Sea Turtles. IUCN/SSC Marine Turtle Specialist Group Publication No. 4. 235pp.
- Lutz, P.L., and J.A. Musick (eds.). 1997. The Biology of Sea Turtles. CRC Press, Inc., Boca Raton, FL. 432pp.
- National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1992. Recovery plan for leatherback turtles (*Dermochelys coriacea*) in the U.S. Caribbean, Atlantic, and Gulf of Mexico. National Marine Fisheries Service, Washington, D.C. 65pp.
- National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery plan for U.S. Pacific populations of the leatherback turtle (*Dermochelys coriacea*). National Marine Fisheries Service, Silver Spring, MD. 65pp.
- National Research Council. 1990. Decline of the sea turtles: causes and prevention. National Academy Press, Washington, D.C. 259pp.
- Pritchard, P. 1989. Status report of the leatherback turtle. Pages 145-152 in Ogren, L., F. Berry, K. Bjorndal, H. Kumpf, R. Mast, G. Medina, H. Reichart, and R. Witham (eds.). Proceedings of the 2nd Western Atlantic Turtle Symposium. NOAA Technical Memorandum NMFS-SEFC-226.
- Pritchard, P.C.H. 1992. Leatherback turtle *Dermochelys coriacea*. Pages 214-218 in Moler, P.E. (ed.). Rare and Endangered Biota of Florida, Volume III. University Press of Florida, Gainesville, FL.
- Ross, J.P. 1982. Historical decline of loggerhead, ridley, and leatherback sea turtles. Pages 189-195 in Bjorndal, K.A. (ed.). Biology and Conservation of Sea Turtles. Smithsonian Institution Press, Washington, D.C.
- Spotila, J.R., A.E. Dunham, A.J. Leslie, A.C. Steyermark, P.T. Plotkin, and F.V. Paladino. 1996. Worldwide population decline of *Dermochelys coriacea*: are leatherback turtles going extinct? Chelonian Conservation and Biology 2(2):290-222.
- Spotila, J.R., R.D. Reina, A.C. Steyermark, P.T. Plotkin, and F.V. Paladino. 2000. Leatherbacks face extinction in the Pacific. Nature 405:529-530.
- Witherington, B.E., and R.E. Martin. 1996. Understanding, assessing, and resolving light-pollution problems on sea turtle nesting beaches. FMRI Technical Report TR-2. Florida Marine Research Institute, St. Petersburg, Florida. 73pp.



**For more information please contact:**

National Sea Turtle Coordinator  
U.S. Fish and Wildlife Service  
6620 Southpoint Drive South  
Suite 310  
Jacksonville, Florida 32216  
Telephone: (904) 232-2580  
Fax: (904) 232-2404

International Sea Turtle Specialist  
U.S. Fish and Wildlife Service  
University of West Georgia  
Department of Biology  
Carrollton, Georgia 30118-6300  
Telephone: (770) 214-9293  
Fax: (770) 836-6633

Updated July 2001