

# Loggerhead Sea Turtle (*Caretta caretta*)

**FAMILY:** Cheloniidae

**STATUS:** The loggerhead sea turtle was initially listed as threatened throughout its range (*Federal Register*, July 28, 1978). On September 22, 2011, the listing was revised from a single global threatened species to a listing of nine Distinct Population Segments (DPS); four listed as threatened (Northwest Atlantic Ocean, South Atlantic Ocean, Southwest Indian Ocean, Southeast Indo-Pacific Ocean, and South Atlantic Ocean DPSs) and five listed as endangered (Northeast Atlantic Ocean, Mediterranean Sea, North Pacific Ocean, South Pacific Ocean, and North Indian Ocean DPSs).

**DESCRIPTION:** The loggerhead is characterized by a large head with blunt jaws. The carapace and flippers are a reddish-brown color; the plastron is yellow. The carapace has five pairs of costal scutes with the first touching the nuchal scute. There are three large inframarginal scutes on each of the bridges between the plastron and carapace. Adults grow to an average weight of about 200 pounds and an average length of 3 feet. The species feeds on mollusks, crustaceans, fish, and other marine animals.

**HABITAT:** The loggerhead is widely distributed within its range. It may be found hundreds of miles out to sea, as well as in inshore areas such as bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers. Coral reefs, rocky places, and ship wrecks are often used as feeding areas. Nesting occurs mainly on open beaches or along narrow bays having suitable sand and it is often in association with other species of sea turtles. Most loggerhead hatchlings originating from U.S. beaches are believed to lead a pelagic existence in the North Atlantic gyre for an extended period of time, perhaps as long as 7 to 12 years, and are best known from the eastern Atlantic near the Azores and Madeira. Post-hatchlings have been found floating at sea in association with *Sargassum* rafts. Once they reach a certain size, these juvenile loggerheads begin recruiting to coastal areas in the western Atlantic where they become benthic feeders in lagoons, estuaries, bays, river mouths, and shallow coastal waters. These juveniles occupy coastal feeding grounds for about 13 to 20 years before maturing and making their first reproductive migration, the females returning to their natal beach to nest.

**CRITICAL HABITAT:** The terrestrial critical habitat areas include 88 nesting beaches in coastal counties located in North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi. These beaches account for 48 percent of an estimated 1,531 miles of coastal beach shoreline and about 84 percent of the documented nesting (numbers of nests) within these six states. Information on terrestrial critical habitat is available here:

[http://www.fws.gov/northflorida/SeaTurtles/2014\\_Loggerhead\\_CH/Terrestrial\\_critical\\_habitat\\_loggerhead.html](http://www.fws.gov/northflorida/SeaTurtles/2014_Loggerhead_CH/Terrestrial_critical_habitat_loggerhead.html).

NOAA National Marine Fisheries Service designated marine critical habitat for the Northwest Atlantic Ocean. Information for marine critical habitat is available here: [http://www.nmfs.noaa.gov/pr/species/turtles/criticalhabitat\\_loggerhead.htm](http://www.nmfs.noaa.gov/pr/species/turtles/criticalhabitat_loggerhead.htm).

**REPRODUCTION AND DEVELOPMENT:** The U.S. nesting season occurs from April through September, with a peak in June and July. Nesting occurs primarily at night. Loggerheads are known to nest from one to seven times within a nesting season (mean is about 4.1 nests per season) at intervals of approximately 14 days. Mean clutch size varies from about 100 to 126 along the southeastern U.S. coast. Incubation duration ranges from about 42 to 75 days, depending on incubation temperatures, but averages 55-60 days for most clutches in Florida. Hatchlings generally emerge at night. Remigration intervals of 2 to 3 years are most common in nesting loggerheads, but remigration can vary from 1 to 7 years. Age at sexual maturity is believed to be about 32 to 35 years.

**RANGE AND POPULATION LEVEL:** The loggerhead occurs throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans. However, the majority of loggerhead nesting is at the western rims of the Atlantic and Indian Oceans. The most recent reviews show that only two loggerhead nesting aggregations have greater than 10,000 females nesting per year: South Florida (U.S.) and Masirah (Oman). Those nesting aggregations with 1,000 to 9,999 females nesting each year are Georgia through North Carolina (U.S.), Quintana Roo and Yucatán (Mexico), Brazil, Cape Verde Islands (Cape Verde, eastern Atlantic off Africa), and Western Australia (Australia). Smaller nesting aggregations with 100 to 999 nesting females annually occur in the Northern Gulf of Mexico (U.S.), Dry Tortugas (U.S.), Cay Sal Bank (The Bahamas), Tongaland (South Africa), Mozambique, Arabian Sea Coast (Oman), Halaniyat Islands (Oman), Cyprus, Peloponnesus (Greece), Island of Zakynthos (Greece), Turkey, Queensland (Australia), and Japan. Loggerheads nest within the U.S. from Texas to Virginia, although the largest nesting concentrations are found in Florida, Georgia, South Carolina, and North Carolina. About 80 percent of loggerhead nesting in the southeastern U.S. occurs in six Florida counties (Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward Counties). Total estimated nesting in the U.S. has fluctuated between 47,000 and 90,000 nests each year over the past two decades. Adult loggerheads are known to make considerable migrations between foraging areas and nesting beaches. During non-nesting years, adult females from U.S. beaches are distributed in waters off the eastern U.S. and throughout the Gulf of Mexico, Bahamas, Greater Antilles, and Yucatan.

Five recovery units have been identified in the Northwest Atlantic Ocean DPS based on genetic differences and a combination of geographic distribution of nesting densities, geographic separation, and geopolitical boundaries. Recovery units are subunits of a listed species that are geographically or otherwise identifiable and essential to the recovery of the species. Recovery units are individually necessary to conserve genetic robustness, demographic robustness, important life history stages, or some other feature necessary for long-term sustainability of the species. The five recovery units identified in the Northwest Atlantic are: (1) Northern Recovery Unit - defined as loggerheads originating from nesting beaches from the Florida-Georgia border through southern Virginia (the northern extent of the nesting range); (2) Peninsula Florida Recovery Unit - defined as loggerheads originating from nesting beaches from the Florida-Georgia border through Pinellas County on the west coast of Florida, excluding the islands west of Key West, Florida; (3) Dry Tortugas Recovery Unit - defined as loggerheads originating from nesting beaches throughout the islands located west of Key West, Florida; (4) Northern Gulf of Mexico Recovery Unit - defined as loggerheads originating from nesting beaches from Franklin County on the northwest Gulf coast of Florida through Texas; and (5) Greater Caribbean Recovery Unit - composed of loggerheads originating from all other nesting assemblages within the Greater Caribbean (Mexico through French Guiana, The Bahamas, Lesser Antilles, and Greater Antilles).

**REASONS FOR CURRENT STATUS:** Threats include loss or degradation of nesting habitat from coastal development and beach armoring; disorientation of hatchlings by beachfront lighting; nest predation by native and non-native predators; degradation of foraging habitat; marine pollution and debris; watercraft strikes; disease; and incidental take from channel dredging and commercial trawling, longline, and gill net fisheries. There is particular concern about the extensive incidental take of juvenile loggerheads in the eastern Atlantic by longline fishing vessels from several countries.

**MANAGEMENT AND PROTECTION:** In the southeastern U.S., major nest protection efforts and beach habitat protection are underway for most of the significant nesting areas, and significant progress has been made in reducing mortality from commercial fisheries in U.S. waters with the enforcement of turtle excluder device regulations. Many coastal counties and communities in Florida, Georgia, and South Carolina have developed lighting ordinances to reduce hatchling disorientations. Important U.S. nesting beaches have been and continue to be acquired for long-term protection. The migratory nature of loggerheads severely compromises these efforts once they move outside U.S. waters, however, since legal and illegal fisheries activities in some countries are causing high mortality of loggerheads from the Northwest Atlantic Ocean DPS. 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.

**SUGGESTED REFERENCES:**

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**For more information please contact:**

Southeast Sea Turtle Coordinator  
U.S. Fish and Wildlife Service  
7915 Baymeadows Way, Suite 200  
Jacksonville, FL 32256  
Phone: (904) 731-3032 Fax: (904) 731-3045  
Email: seaturtle@fws.gov

Program Officer, Marine Turtle Conservation Fund  
Division of International Conservation  
U.S. Fish and Wildlife Service  
4401 N. Fairfax Drive, MS100  
Arlington, VA 22203  
Phone: (703) 358-2277 Fax: (703) 358-2115

