

# Marine Reptiles

## Leatherback sea turtle

*Dermochelys coriacea*

For photo see:

[http://www.nmfs.noaa.gov/prot\\_res/species/turtles/leatherback.html](http://www.nmfs.noaa.gov/prot_res/species/turtles/leatherback.html)

### SPECIES STATUS:

Federally Listed as Endangered  
State Listed as Endangered  
IUCN Red list – Vulnerable

**SPECIES INFORMATION:** Little information exists on the feeding behavior of post-hatchling and juvenile leatherback sea turtles living in pelagic habitats, but most likely they are exclusively carnivorous. Leatherbacks are the only sea turtle in which adults are also pelagic and carnivorous, feeding on jellyfishes, siphonophores, and salps, although they also feed on plants. They exhibit rapid growth rates from hatchling to juvenile (approximately 32 centimeters in length per year). Reproduction is seasonal, with two to three years between nesting. Females lay about five to seven clutches per year, and incubation lasts about 60 days. They are known to migrate long distances, up to 11,000 kilometers from their breeding areas. Sex determination is temperature-dependent. Genetic analysis of turtles incidentally caught in the Hawai'i-based longline fishery reveals that 12 out of 14 turtles came from the west Pacific and the other two originated from the eastern Pacific.

**DISTRIBUTION:** Transient visitors around the Hawaiian Islands. The entire Pacific population may be highly interconnected. Worldwide, leatherback sea turtles occur throughout tropical, temperate, and sub-polar regions of the Atlantic, Pacific, and Indian Oceans and the Mediterranean. Nesting occurs on subtropical and tropical beaches of the Atlantic, Pacific, and Indian Oceans.

**ABUNDANCE:** Rare in Hawai'i. In the Pacific Ocean, the annual number of breeding females is around 3,000 with declining nesting population trends noted at most breeding locations.

**LOCATION AND CONDITION OF KEY HABITAT:** Usually found in deep, highly productive waters. They occur in water that is far colder than that inhabited by any other sea turtle species. Nesting does not occur in Hawai'i but occurs on sandy beaches in the subtropics and tropics.

### THREATS:

- Fisheries bycatch. Mortality of adult and juvenile turtles results from fisheries bycatch. Due to federally mandated sea turtle take reduction measures implemented by Hawaiian longline fisheries, bycatch rates have been reduced by approximately 90 percent since 2004. Bycatch remains a threat in other regions.
- Habitat loss and degradation. Nesting beaches (all of which occur outside Hawai'i) are critical to the species' survival and are subject to natural and human-caused threats such as tsunamis, oil spills, sea level rise from climate change, and coastal development.
- Harvest of eggs and adults. Harvest occurs on beaches in many countries, although conservation efforts have reduced this threat.
- Marine debris. Entanglement by, or ingestion of, marine debris is a source of mortality.

**CONSERVATION ACTIONS:** Actions specific to leatherback sea turtles should include the following:

- Cooperate with jurisdictions where nesting occurs to restore nesting habitat and reduce take of eggs and females.
- Reduce marine debris in the marine environment and on beaches.
- Continue partnerships with local conservation groups to monitor and conserve turtles, respond to stranding, and conduct research and outreach programs.
- Conduct education and outreach efforts, particularly to address threats such as fishing interactions, marine recreation interactions, and marine debris.

**MONITORING:** Continue to monitor turtles harmed or killed by marine debris and fisheries bycatch.

**RESEARCH PRIORITIES:** Determine distribution, abundance, and status of post-hatchlings, juveniles, and adults in the marine environment, especially in their foraging grounds.

**References:**

Gulko D, Eckert K. 2003. Sea turtles: an ecological guide. Honolulu, HI: Mutual Publishing.

IUCN Red List of Threatened Species. 2015. Version 2014.3. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed May 2015).

Kaneko JJ, and Bartram PK. 2008. What if you don't speak "CPUE-ese"? Pelagic Fisheries Research Program Newsletter, University of Hawai'i. 13(2):1-3.

National Marine Fisheries Service. 2004. Fisheries off West Coast States and in the Western Pacific; Western Pacific Pelagic Fisheries; Pelagic Longline Fishing Restrictions, Seasonal Area Closure, Limit on Swordfish Fishing Effort, Gear Restrictions, and Other Sea Turtle Take Mitigation Measures. FR 69:17329-17354.

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*). Silver Springs, MD.

National Marine Fisheries Service and U.S. Fish and Wildlife Service. 2013. Leatherback Sea Turtle (*Dermochelys coriacea*) 5-year Review: Summary and Evaluation. National Marine Fisheries Service, Silver Springs, Maryland, and U.S. Fish and Wildlife Service, Jacksonville, Florida.