

Marine Reptiles

Leatherback sea turtle

Dermochelys coriacea

For photo see:

http://www.nmfs.noaa.gov/prot_res/species/turtles/leatherback.html

Species Status:

Federally Listed as Endangered

State Listed as Endangered

IUCN Red list – Critically Endangered

SPECIES INFORMATION: Little information exists on the feeding behavior of post-hatchlings and juveniles 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 on jellyfishes, siphonophores, and salps. Growth rates are largely unknown in the wild. Reproduction is seasonal with two to three years between nestings. Incubation lasts about 60 days. Long migrations are likely. Sex determination is temperature dependent. Genetic analysis of individuals incidentally caught in the Hawai‘i-based longline fishery reveals that 12 out of 14 sampled came from the west Pacific. The remaining two, which were caught in the southern part of the fishery’s range, originated from nesting beaches in the eastern Pacific.

DISTRIBUTION: Today, leatherback turtles are transient visitors around the Hawaiian Islands. The entire population of the Pacific may be highly interconnected. Nesting occurs in Mexico, China, SE Asia, Australia, and some Pacific islands with one (infertile) nesting reported from Hawai‘i. Post-hatchlings and juveniles live in pelagic waters, but little is known of their specific distribution.

ABUNDANCE: Rare in Hawai‘i. No trend of increase or decrease has been noted.

LOCATION and CONDITION OF KEY HABITAT: Leatherback sea turtles are most often found in deeper pelagic habitats. Nesting areas are extremely critical to the survival of the leatherback sea turtle but occur outside Hawai‘i.

THREATS:

- Threats to nesting in other jurisdictions are a problem and are addressed in the recovery plan;
- In the ocean the main threats are marine debris and incidental and directed take in pelagic fisheries. Incidental Take Permits are in-place for the Hawai‘i longline fisheries. Another important threat is the direct take of adult and juvenile turtles in other jurisdictions.

CONSERVATION ACTIONS: The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. Past efforts have included an endangered listing by the State of Hawaii and U. S. government and resultant ban on capturing sea turtles; and various partnerships with local and national

public and private organizations. The Western Pacific Regional Fisheries Management Council has implemented rules to decrease incidental take in the longline fishery. In addition to common state-wide and island conservation actions, specific actions include:

- Cooperate with jurisdictions where nesting occurs to restore nesting habitat;
- Collaborate with the National Marine Fisheries Service through the nearshore Incidental Take Permit process and otherwise to protect and manage turtles in the marine environment including both pelagic and foraging habitats to decrease incidental and direct takings;
- Work to reduce the amount of marine debris in nearshore habitats;
- Continue turtle stranding response partnerships;
- Increase education and outreach efforts, particularly to address threats such as marine debris.

MONITORING:

- Continue partnership to monitor turtles harmed or killed by marine debris;
- Monitor number of turtles stranded or taken as bycatch to determine if education and law enforcement efforts are successful.

RESEARCH PRIORITIES:

- Continue research on ways to decrease bycatch;
- Determine distribution, abundance and status of post-hatchlings, juveniles and adults in the marine environment, especially foraging grounds.

References:

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Gulko D, Eckert K. 2003. Sea turtles: an ecological guide. Honolulu, HI: Mutual Publishing. 128 pp.

Hawai'i Department of Land and Natural Resources (DLNR). 2005. Application for an Individual Incidental Take Permit pursuant to the Endangered Species Act of 1973 for listed sea turtles and Hawaiian monk seals in inshore marine fisheries in the Main Hawaiian Islands managed by the State of Hawaii. Honolulu, HI: DLNR. 69 pp.

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