

## Turtle

Only four species of turtles, all marine turtles, have been documented within the state's borders. Terrestrial and freshwater aquatic species of turtles do not occur in Alaska.

Marine turtles are occasional visitors to Alaska's Gulf Coast waters and are considered a natural part of the state's marine ecosystem. Between 1960 and 2007 there were 19 reports of **leatherback sea turtles** (*Dermochelys coriacea*), the world's largest turtle. There have been 15 reports of **Green sea turtles** (*Chelonia mydas*). The other two are extremely rare, there have been three reports of **Olive ridley sea turtles** (*Lepidochelys olivacea*) and two reports of **loggerhead sea turtles** (*Caretta caretta*). Currently, all four species are listed as threatened or endangered under the U.S. Endangered Species Act. Prior to 1993, Alaska marine turtle sightings were mostly of live leatherback sea turtles; since then most observations have been of green sea turtle carcasses. At present, it is not possible to determine if this change is related to changes in oceanographic conditions, perhaps as the result of global warming, or to changes in the overall population size and distribution of these species.

**General description:** Marine turtles are large, tropical/subtropical, thoroughly aquatic reptiles whose forelimbs or flippers are specially modified for swimming and are considerably larger than their hind limbs. Movements on land are awkward. Except for occasional basking by both sexes and egg-laying by females, turtles rarely come ashore. Turtles are among the longest-lived vertebrates. Although their age is often exaggerated, they probably live 50 to 100 years.

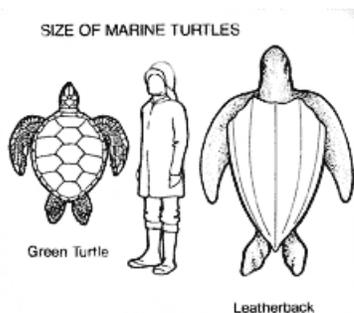
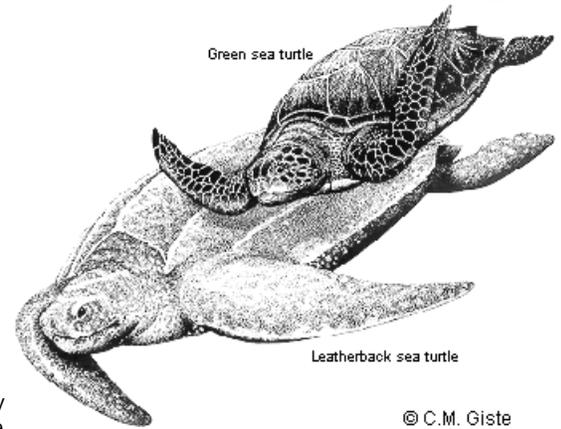
Of the five recognized species of marine turtles, four (including the green sea turtle) belong to the family Cheloniidae. The remaining one (leatherback sea turtle), because of the unique character of its shell, is placed in a family by itself, Dermochelyidae. The shell, or exoskeleton, of most turtles is composed of bony plates covered with horny shields. The shell of a few species is covered with smooth skin. The dorsal (top) portion of the shell is the carapace, the ventral (bottom) portion, the plastron.

The leatherback sea turtle has a smooth leathery skin with prominent longitudinal ridges on its shell. It is dark gray, brown, or black with whitish spots on neck and limbs. Leatherbacks reach 8 feet (2.4 m) and 1,500 pounds (682 kg), although most adult leatherbacks are typically 5 feet long (1.5 m) and weigh about 800 pounds (364 kg). The green sea turtle has a smooth, hard, olive or dark brown shell. It reaches a length of 5 feet (1.5 m) and a weight of 800 pounds (364 kg), although most adult turtles are 3 feet long and weigh about 200 pounds (91 kg).

**Life history:** Marine turtles are found worldwide. They breed in the tropics/subtropics and lay their eggs at night in holes dug on sandy beaches by the female. A single female may deposit several clutches of eggs each year. The eggs are round, covered with a parchment-like skin, and about as big as golf balls. The number of eggs laid ranges from 85 to 500. Leatherback sea turtles feed almost exclusively on jellyfish. Leatherbacks have a mammal-like ability to maintain a high body temperature (about 80° F), independent of the temperature of the surrounding water. This may account for its relatively common occurrence in cold northern waters where jellyfish are seasonally abundant. Green sea turtles are primarily vegetarian as adults. In contrast to the leatherbacks, the hard shell turtles (green, olive ridley, and loggerhead) are considered warm water species, which rarely stray into cold Alaskan waters.

**Migration:** Marine turtles migrate considerable distances between their nesting and feeding grounds. Leatherback sea turtles have been recorded 3,000 miles from their nesting grounds. The mechanisms of sea turtle navigation have been intensely investigated, but the cues or sensory systems involved are still unknown. Both green sea turtles and leatherback sea turtles probably reach Alaska by way of the warm Japan Current and North Pacific Current which reach Alaska's Alexander archipelago, arc northwestward across the Gulf of Alaska, and then flow southwestward along the Aleutian chain.

**Recreational and economic status:** An increasingly large segment of society gains pleasure from observation of marine animals in their natural habitat. The opportunities for turtle watching in Alaska obviously are not as great as elsewhere, but a sighting can be very exciting, considering the rarity of such occurrences. Documenting turtle movements in Alaska waters, in addition to offering recreation, adds to the scientific knowledge of these animals in northern waters. The green sea turtle is on the federal threatened species list; the leatherback sea turtle is endangered throughout its range. Marine turtles do not represent a threat to any commercial fishery in Alaska.



**Federal regulations:** All marine turtles are protected by the United States Government. Severe penalties are imposed for molesting or killing free-swimming turtles or salvaging turtles or parts of turtles stranded or dead on Alaska's beaches. Free-swimming turtles and turtles caught in fishing gear fall under the jurisdiction of the National Marine Fisheries Service. Turtles stranded or dead on Alaska's beaches fall under the jurisdiction of the United States Fish and Wildlife Service. Many turtles are tagged at their tropical/subtropical nesting beaches. The most commonly used tag is metal cattle ear tag which is clipped through the trailing edge of the front flipper by means of a specially designed pair of pliers. If you observe such a tag on a living or dead turtle, note the type of tag and location of the turtle, record data on the tag if possible (but do not remove it), and turn the information in to the appropriate federal authorities. Information concerning first aid for marine turtles can be obtained from federal authorities.

**Text:** Robert Parker Hodge, revised by Mary Rabe 2008  
**Illustration:** C.M. Giste