

Cultural Significance

In some creation myths, the sea turtle is the animal on whose back the world was created.

A symbol of longevity, fertility, strength and protection, turtles are revered in culture and customs around the globe.

Pacific Islanders have a strong cultural relationship with green sea turtles.

- Turtles are an intrinsic part of the traditions and folklore of the region.
- Turtles played important roles in religious ceremonies.
- Community relationships and cultural integrity were perpetuated through the exchange of turtle meat and turtle artifacts.

In Hawaii, green sea turtles (known as *honu*) are featured in:

- The fourth verse of the *Kumulipo*, the Hawaiian creation chant;
- Petroglyphs, legends, myths and stories as helpers, demigods and heroes.

For example:

- ♦ the *hula honu* is a dance to honor the turtle *aumakua* (family god);
- ♦ the folklore of the goddess *Kauila*, the mystical mother of all *honu*, relates turtles to ancient Hawaiian culture; and
- Provided meat and eggs for food, oil to treat skin ailments, and shell and bone for tools and weapons.

Traditional Management

Turtles were historically part of the diet of Pacific islanders. It is believed that traditional management provided a buffer on the number of turtles harvested based on *kapu* [rules] or 'taboo' system.

For example:

- Hunting was undertaken ceremoniously and feasts were communal events;
- In some communities, only certain members (chiefs, priests, or men) were permitted to eat turtles; and
- Turtles were harvested for specific circumstances, such as weddings, funerals, religious ceremonies, fiestas, canoe building and navigational celebrations.

Current Cultural Issues

- The legal harvest of green sea turtles in U.S. Pacific Islands ended in 1978 when they were listed as Threatened under the Endangered Species Act (ESA).
- Under the ESA, it is illegal to harass, harm, harvest, or sell sea turtles.
- This application of the ESA, however, barred Native Peoples from including green sea turtles in traditional practice.
- Traditional utilization of green sea turtles became illegal and conceivably marginalized traditional Pacific Island cultures.
- Today, the idea of using of green sea turtle to perpetuate traditional practice remains controversial.



Continued Threats

Hawaiian green sea turtles were once threatened by an outbreak of a tumor-forming disease (fibropapillomatosis) starting in the late 1980s. However, the once-prevalent disease peaked in the mid-1990s, and has been steadily declining since.

The causes of the rise and fall of the disease are still unknown. While many cases of the devastating tumor disease in green sea turtles are still observed in Hawaii, there has been no discernable effect on the population as a whole.

Incidental capture and entanglement in near-shore fisheries, boat strikes, and shark attacks are also known to cause green sea turtle mortality in Hawaii.



HOW YOU CAN HELP

- ♦ If a sea turtle becomes entangled in your fishing gear, help to release it, and be sure to remove any trailing line.
- ♦ Do not leave fishing gear unattended.
- ♦ Keep the oceans free of trash and pollution.
- ♦ If you see a *honu* in the wild, do not attempt to touch, grab or feed it. This could cause distress to the turtle.
- ♦ If you should find a sick, injured or stranded turtle:
 - In Hawaii, call the Turtle Stranding hotline at NOAA Fisheries, Pacific Islands Fishery Science Center (808) 983-5730 or 1-800-853-1964.
 - In other Pacific island areas, call the local Wildlife Department (DAWR, DFWCO, DMWR).

Green Sea Turtles of the Pacific Islands

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THE WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL is one of eight Councils in the United States established by the Magnuson Fishery Conservation and Management Act of 1976. The Council oversees the nations' fisheries in the 200-mile U.S. Exclusive Economic Zone of the Pacific Islands Region (an area as large as the continental U.S.). For more information on the Council and its sea turtle conservation program, visit www.wpcouncil.org.



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Life History and Biology

Green sea turtles (*Chelonia mydas*) are long-lived, charismatic species that inhabit tropical and subtropical ocean waters throughout the world. Green sea turtles have distinct regional populations, such as the genetically distinct Hawaiian population.

Adult green sea turtles may reach a size of 3 feet (1 meter) long and weigh 400 lbs (180 kg).

Green sea turtles are primarily vegetarian, feeding on algae or limu that grow on coral reefs and rocks in shallow coastal waters.

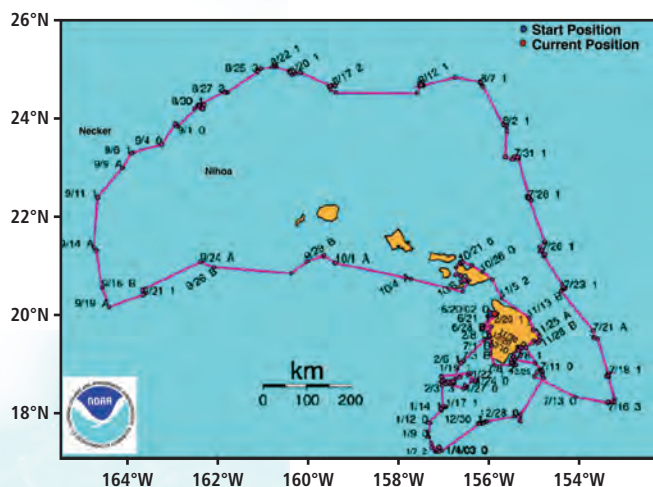


Figure 2. The oceanic migration of a juvenile Hawaiian green sea turtle, Mauna Lani #22270, released June 20, 2002 and tracked for 265 days and 4,847 km (1,940 miles) (graph source: www.Turtletrax).

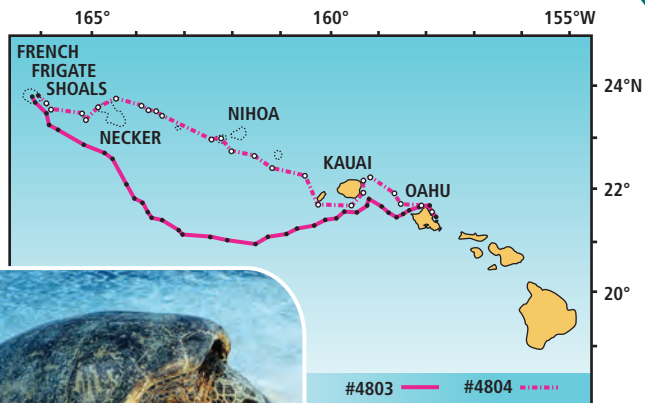


Figure 1. Migratory routes of two female Hawaiian green sea turtles #4803 (11 days) and #4804 (26 days) from nesting beaches at French Frigate Shoals, NWHI, to Kaneohe Bay, Oahu. Each turtle traveled about 1,200 miles (graph source: Balazs (1995) 14th Annual Sea Turtle Symposium).

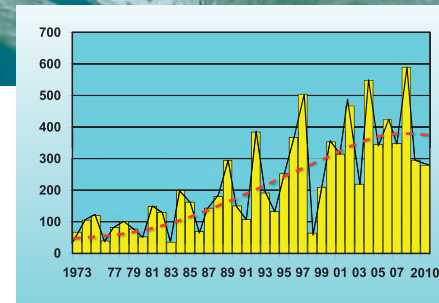
Migrations

Although sea turtles live most of their lives in the ocean, adult females must return to land to lay their eggs. When Hawaiian green sea turtles reach sexual maturity at about 30 years of age, they undertake the long migration (every 2 to 5 years) to mate and nest at French Frigate Shoals in the Northwestern Hawaiian Islands (NWHI) (Figure 1).

Upon departing the nesting beach, hatchlings embark upon a journey that can last between 3 to 5 years. These years are commonly called the "lost years" because researchers know very little about how these small turtles live or where they go before returning to Hawaii.

Juvenile Hawaiian green sea turtles settle out of the open ocean environment and take up residence in the coastal habitats of the main Hawaiian Islands at about 35 cm (14 inches) in size where they become important inhabitants of coral reef communities. However, as data from satellite tracking indicate, juvenile Hawaiian green sea turtles can also undertake extensive migrations (Figure 2).

Figure 3. Estimated number of Hawaiian green sea turtles nesting at East Island, French Frigate Shoals, NWHI, 1973-2010 (data source: Marine Turtle Research Program, Pacific Islands Fisheries Science Center, National Marine Fisheries Service)



Conservation

Globally, sea turtles have been utilized by people for food and other purposes for thousands of years. Some green sea turtle populations are currently in decline or locally extinct. However, Hawaiian green sea turtles are an excellent example of effective conservation and recovery through management and education.

- Green sea turtles were listed as Threatened under the U.S. Endangered Species Act (ESA) in 1978.
- After nearly 40 years of protection and research, the once seriously depleted Hawaiian green sea turtle population is now well on the road to recovery, increasing steadily at a rate of 5.7% annually.
- At nesting beaches of French Frigate Shoals, NWHI, more turtles have returned to nest over time (Figure 3).
- In the Main Hawaiian Islands, the population in some areas is approaching the carrying capacity that foraging grounds can support.

Non-consumptive versus Consumptive Use

The abundance of green sea turtles in Hawaii provides non-consumptive uses in the form of wildlife watching and other ecotourism activities. Many turtles in Hawaii tend not to flee at the sight of humans, likely as a result of the long-term ban on harvest due to their protected status. Visitors and residents alike may experience close encounters with green sea turtles in near-shore waters while snorkeling, diving, and kayaking. Basking behavior of Hawaiian green sea turtles also offer unique viewing opportunities while the turtles rest on the beach.

With a recovering population, however, could Hawaiian green sea turtles someday no longer need the special protective measures afforded by the ESA and be delisted from the ESA? If so, would Native Hawaiians be permitted a limited cultural take to maintain traditional practices? These are questions that resource managers must ask, and public input is welcomed.

