



Scientist tagging the shell on a basking green turtle in the Northwestern Hawaiian Islands. (Photo: NOAA Fisheries / Jan Staman)

Science for Conservation

We study sea turtle species that live in the North Pacific Ocean during one or more life stages, from hatchling to adult. This includes [green](#), [loggerhead](#), [olive ridley](#), [leatherback](#), and [hawksbill](#) sea turtles—all of which are protected under the [U.S. Endangered Species Act](#). Our research is guided by a recovery plan for each turtle species, and conducted in collaboration with the U.S. Fish and Wildlife Service, to inform our management decisions for sea turtle conservation. We survey sea turtles and conduct other focused studies to gain valuable biological and ecological information and a better understanding of sea turtle life history and ecology, natural and human-caused threats, and turtle populations dynamics in the Pacific.

To see the impacts of our work, look no further than the green turtle, also known as "honu" in Hawai'i, which is the most common turtle in the state and is often seen feeding in shallow coastal waters. When our studies began in the 1970s, the green turtle population in Hawai'i was severely depleted. Now, after years of federal regulations and conservation efforts, which have been informed by our rigorous science, our monitoring data shows that the green turtle population in Hawai'i is recovering.

Research Areas

Our primary goal is to better understand, assess, and monitor sea turtle populations in the Pacific—to support management needs and species recovery goals, as mandated through the Endangered Species Act and other federal statutes. We study sea turtle populations by:

1. Conducting cutting-edge field and laboratory research.
2. Designing geospatial models of long-term population, ecology, satellite, and climate data.
3. Providing data streams, research infrastructure, and scientific leadership across the Pacific.



Green turtles mating off of Maui, Hawaii. Photo: NOAA Fisheries/Don Mcleish.

We focus on the biological health and threats to sea turtle populations, with projects on a variety of topics:

- Population abundance estimates of sea turtles in the Hawaiian Islands, Guam, Commonwealth of Northern Marianas, American Samoa, and other U.S. Pacific Island Territories.
- Climate change effects on turtle populations and their habitats.
- Movement and habitat use.
- Fisheries impacts.
- Genetic diversity and stock structure.
- Health consequences of tumor-forming diseases.
- Physiology and resource requirements.
- Influences of man-made noise on turtle behavior.

Drag impacts of biotelemetry devices.

- Nesting and foraging ecology.
- Threat assessments.

Rescue, Rehabilitation, and Release

Since 1990, our sea turtle researchers have supported recovery efforts by working closely with non-profit, community, and educational partners to rescue, rehabilitate, and release sea turtles throughout the Hawaiian Islands. These partnerships, along with reports from residents and tourists, allowed us to rescue and release more than **1,000 turtles** . The most common causes of stranding are tumor-forming diseases (fibropapillomatosis) and fisheries interactions (fishing line or net entanglements), as well as injuries from boat strikes and shark attacks. While treating injured sea turtles, we are also able to collect important information about threats to sea turtle populations.



NOAA and collaborating researchers applying satellite transmitters to several sea turtles in Guam. Photo: NOAA Fisheries/Summer Martin.

Partners

Partnerships represent a fundamental component of our work and are essential to successful sea turtle

research activities throughout the Pacific Islands Region.

Key partners include (but are not limited to) Maui Ocean Center Marine Institute, the State of Hawaii; City and County of Honolulu; Counties of Maui, Kauai and Hawaii; Federal and Defense Department agencies; University of Hawaii (including the Joint Institute for Marine and Atmospheric Research, the Marine Option Program, Maui College, and Hawaii Preparatory Academy); Navy Base Guam; DLNR of Hawaii, Guam, Commonwealth Northern Marianas and American Samoa; DAWR Guam; University of Guam/Sea Grant; Hawaii Island Hawksbill Turtle Recovery Project; World Turtle Trust and NPS Hawaii Volcanoes National Park (HAVO); Halawa Hawksbill Monitoring Program; Hawaii Wildlife Fund; Hawaiian Hawksbill Conservation; The Nature Conservancy; the U.S. Fish and Wildlife Service; Pūlama Lānaʻi; Maui Ocean Center Marine Institute; Hawaiʻi Natural History Association; University of Hawaiʻi at Mānoa - Pacific Cooperative Studies Unit; University of Hawaiʻi at Hilo; The Three Mountain Alliance; ʻImi Pono no kaʻina; Yamanaka Enterprises Inc.; Nani Kahuku Aina LLC; The Nature Conservancy of Hawaiʻi; Kaʻū High School; and Hawaiʻi Trust for Public Land .

More Information

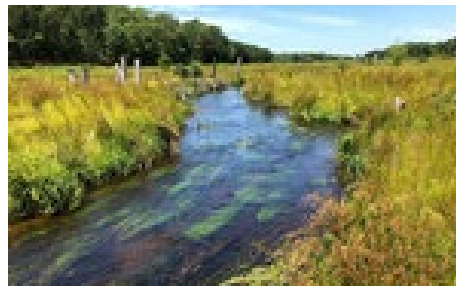
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