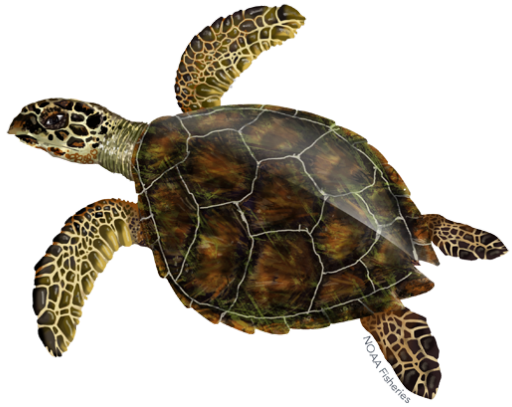
Hawksbill Turtle

Hawksbill Turtle

Eretmochelys imbricata



Protected Status

ESA ENDANGERED
Throughout Its Range

CITES APPENDIX I
Throughout Its Range

Quick Facts

WEIGHT	Adult: 100 to 150 pounds
LIFESPAN	Unknown, but estimated to be 50 years or more
LENGTH	Adult: 2 to 3.5 feet
THREATS	Bycatch in fishing gear, Climate change, Direct harvest of turtles and eggs, Loss and degradation of nesting and foraging habitat, Ocean pollution/marine debris, Predation of eggs and hatchlings, Vessel strikes
REGION	Pacific Islands, Southeast

Hawksbill sea turtle swimming underwater. Photo: U.S. Fish and Wildlife Service

About the Species

Hawksbill sea turtles inhabit the tropical and sub-tropical waters of all of the world's major oceans. Hawksbills get their name from their unique beak-like mouth, which resembles that of a hawk and is perfect for finding food sources in hard-to-reach cracks and crevices. They are the only species of sea turtle that can survive on a diet consisting mainly of sponges. Hawksbill turtles play a key role in the function of marine ecosystems.

In many parts of the world, hawksbills face the unique threat of being hunted for their beautiful shell, also known as "tortoise shell", which is used by craftspeople to create many types of jewelry and trinkets. The historical hunting and killing of hawksbills for their shell nearly drove the species to extinction. Today, the Convention on International Trade of Endangered Species (CITES) forbids the trade of any turtle products on the international market, including hawksbill tortoise shell, but illegal hunting continues to represent a threat to the species in many parts of the world.

NOAA Fisheries and our partners are dedicated to protecting and recovering hawksbill turtle populations worldwide. We use a variety of innovative techniques to study, protect, and recover this endangered species. We engage our partners as we develop measures and recovery plans that foster the conservation and recovery of hawksbill turtles and their habitats. And we fund research, monitoring, and conservation projects to implement priorities outlined in recovery plans.

Population Status

Hawksbill turtles often nest in small numbers, and usually on remote beaches. The largest populations of hawksbills are found in the west Atlantic (Caribbean), Indian, and Indo-Pacific Oceans.

The largest nesting populations of hawksbill turtles occur in Australia and Solomon Islands. Approximately 2,000 hawksbills nest annually on the northwest coast of Australia and 6,000 to 8,000 nest annually in the vicinity of the Great Barrier Reef. The largest rookery for hawksbill turtles in the South Pacific Ocean is in the Arnavon Islands of the Solomon Islands, where approximately 2,000 hawksbill nest each year. Arnavon hawksbills have been heavily exploited for their shell for centuries, but two decades of conservation and monitoring efforts are showing encouraging signs of recovery. Around 2,000 hawksbills nest each year in Indonesia and 1,000 in the Republic of Seychelles.

In the Atlantic, the greatest number of hawksbill nests are laid in Mexico, Cuba, and Barbados, but nesting occurs throughout the Insular Caribbean. The most significant nesting within the United States occurs in Puerto Rico and the U.S. Virgin Islands. Each year, about 500 to 1,000 hawksbill nests are laid on Mona Island, Puerto Rico and another 100 to 150 nests on Buck Island Reef National Monument off St. Croix. In the continental United States, nesting is rare and is restricted primarily to the southeast coast of Florida and the Florida Keys.

In the U.S. Pacific, hawksbills nest primarily in Hawaii where 10 to 25 females nest annually on beaches along the south coast of the island of Hawaii and the east coast of the island of Molokai. This population may constitute one of the smallest hawksbill nesting populations in the world, but is the largest in the Central North Pacific Ocean. In the Eastern Pacific, approximately 700 females nest annually from Mexico to Peru. The 2013 ESA 5-year review of the hawksbill sea turtle provides additional information for this species.

Protected Status

ESA Endangered

- Throughout Its Range

CITES Appendix I

- Throughout Its Range

Appearance

Hawksbill turtles have mottled shells consisting of an irregular combination of shades of amber, orange, red, yellow, black and brown. The shells typically have serrated edges, with overlapping scutes. Their head comes to a tapered point and their lower jaw is V-shaped, giving them a hawk-like appearance. Hawksbills grow up to 2 to 3 feet in shell length and can weigh between 100 and 150 pounds at maturity. Hatchlings are only 2 to 3 inches long and mostly brown in color. Hawksbills

have four scales (two pairs) between their eyes and four scutes along the edge of each side of their carapace.

Behavior and Diet

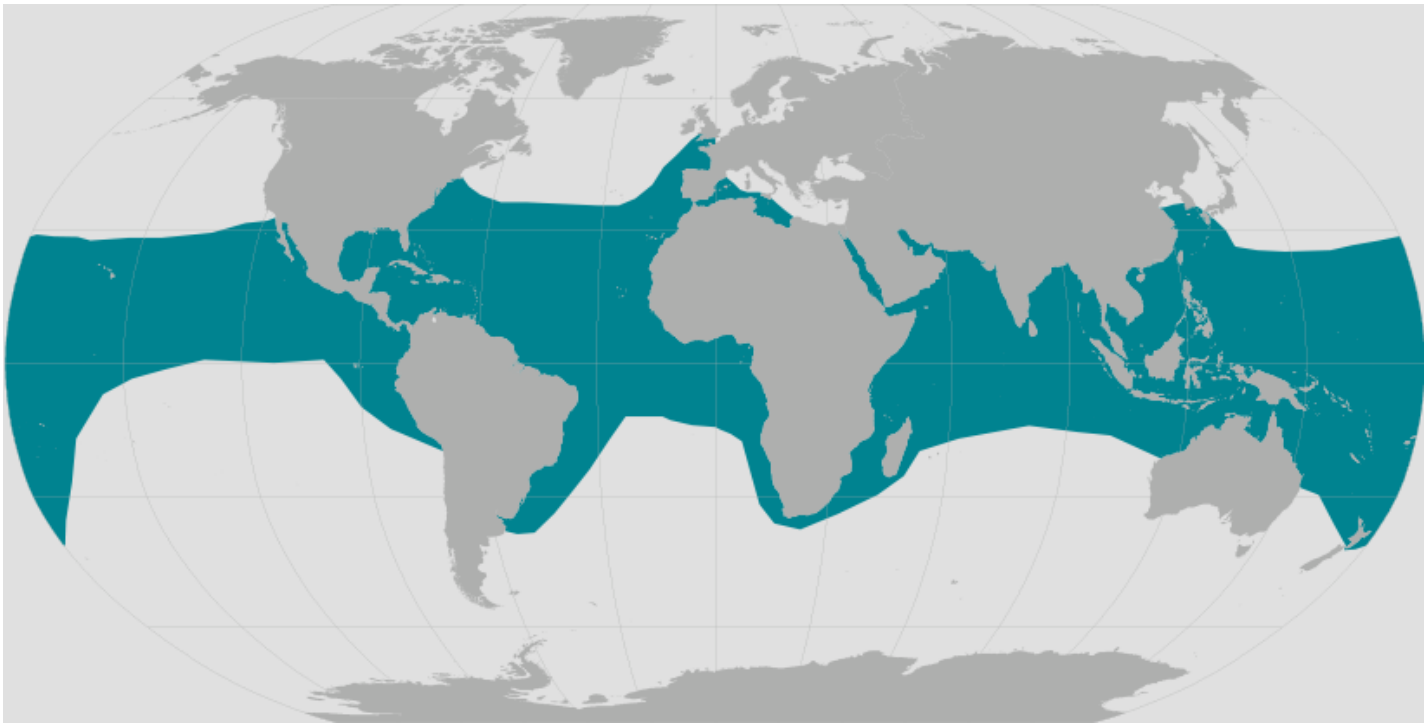
Hawksbill turtles are omnivorous (feeding on both plants and other animals), but their preferred food in many areas is sea sponges. They will also eat marine algae, corals, mollusks, tunicates, crustaceans, sea urchins, small fish, and jellyfish. In Hawaii, they tend to be opportunistic given the limited availability of sponges. The shape of their mouth and their sharp beaks enable them to reach into small holes and crevices in the reefs to find food.

Like other sea turtle species, hawksbills can migrate long distances between foraging areas and nesting beaches. In the Atlantic, a female hawksbill that nested at Buck Island Reef National Monument in the U.S. Virgin Islands was tracked 1,160 miles to foraging habitat in the Miskito Cays in Nicaragua. Solomon Island hawksbills can travel 500 to 1000 miles (800 to 1,650 kilometers) between Arnavon nesting beaches and foraging areas off Australia. However, some hawksbill populations, such as Hawaiian hawksbills, migrate shorter distances and stay within the island chain.

Where They Live

Hawksbill turtles use a variety of habitats during different stages of their life cycle, but largely inhabit nearshore foraging grounds, especially healthy coral reef habitats. In the Eastern Pacific, large hawksbill populations have been found in mangrove estuaries. Upon leaving their nesting beaches, most hawksbill hatchlings enter pelagic (open sea) habitat, where they take shelter in floating algal mats and drift lines of flotsam and jetsam for approximately 1 to 5 years. Eventually, juveniles migrate to shallower coastal feeding grounds, including their preferred coral reef habitats, where they mature to adulthood and spend the remainder of their lives. The ledges and caves of coral reefs provide shelter for resting hawksbills during the day and at night. Hawksbills are also found around rock formations, high energy shoals (sand bars in shallow water), and estuaries that provide good habitat for sponge growth.

Hawksbills can be found living in nearshore habitats in all of the world’s major oceans. The occurrence of hawksbills across many countries makes it critical for citizens and governments to work together for the protection and recovery of the species.



World map providing approximate representation of the hawksbill turtle's range.

Lifespan & Reproduction

Hawksbills are estimated to reach maturity between 20 to 35 years of age, depending upon a variety of factors, especially resource availability. Although life expectancy remains unconfirmed, they are long-lived and estimated to live 50 to 60 years.

Every 1 to 5 years, female hawksbill turtles return to nest on beaches in the general areas where they hatched decades earlier. Hawksbills generally lay three to five nests per season, which each contain an average of 130 to 160 eggs. The nesting season varies by location, but in most places occurs between April and November of each year. Hawksbills typically nest at night on small and isolated “pocket” beaches, with little or no sand and a rocky approach. They usually nest high up on the beach under or in vegetation.

After about two months incubating in the warm sand, the eggs hatch, and the hatchlings make their way to the water. Hatchlings orient seaward by moving away from the darkest silhouette of the landward dune or vegetation to crawl towards the brightest horizon. On undeveloped beaches, this is toward the open horizon over the ocean.

Threats

Bycatch in Fishing Gear

A primary threat to sea turtles is their unintended capture in fishing gear which can result in drowning or cause injuries that lead to death or debilitation (for example, swallowing hooks or flipper entanglement). The term for this unintended capture is bycatch. Sea turtle bycatch is a worldwide problem. The primary types of gear that result in bycatch of hawksbill turtles include gillnets and hook and line fisheries operating in coastal habitats.

Direct Harvest of Turtles and Eggs

Despite their protection under various national and international frameworks, the intentional killing of hawksbills for the wildlife trade and the harvest of their eggs, meat and shells is still widespread.

Hawksbill tortoise shell is often collected and carved into hair clips, combs, jewelry, and other trinkets, while whole turtles are often harvested and stuffed, all of which can then be sold in the illegal wildlife trade. Hawksbill eggs are dug up and consumed by coastal community members, or sold for consumption in nearby urban centers. Hawksbill meat is still consumed in many countries, although it is often considered less of a delicacy than the meat of other sea turtle species. Due to the sponges hawksbills eat, their meat can become toxic, which has led to the mass poisoning, illness and death of groups of individuals.

Loss and Degradation of Nesting and Foraging Habitat

A major threat to hawksbill turtles is the loss of nesting habitat and coral reefs due to coastal development, rising seas from climate change, and pollution. Coastal development, including shoreline hardening or armoring (e.g., seawalls), can result in the complete loss of dry sand suitable for successful nesting. Rising sea levels and more intense storms are leading to the erosion of nesting beach habitat as well as nest inundation. Artificial lighting on and near nesting beaches can deter nesting females from coming ashore to nest and can disorient hatchlings trying to find the sea after emerging from their nests.

In addition, changes to coral communities as a result of land-based runoff and coral bleaching events can negatively impact habitat and prey organisms. Recent evidence shows that global climate change is damaging coral reefs by causing more cases of coral diseases, which can ultimately kill entire coral reef communities. Hawksbill turtles rely on these coral reefs for food resources and habitat.

Predation of Eggs and Hatchlings

The destruction and consumption of eggs and hatchlings by non-native and native predators (particularly feral pigs, rats, racoons, mongoose, feral cats and dogs) is a major threat to sea turtles around the world. In particular, burgeoning populations of feral and semi-domesticated dogs have accompanied the development of human coastal communities, resulting in the rampant consumption of hawksbill eggs and hatchlings around the globe.

Vessel Strikes

As with other species of sea turtles, hawksbill sea turtles are at risk of being struck by various types of watercraft when they are at or near the surface. Increases in vessel traffic associated with coastal development and recreation can threaten turtles near the surface, especially in areas near ports, waterways, and developed coastlines throughout their range.

Ocean Pollution/Marine Debris

Increasing pollution of nearshore and offshore marine habitats threatens all sea turtles and degrades their habitats. Hawksbill turtles may ingest marine debris such as fishing line, balloons,

plastic bags, floating tar or oil, and other materials discarded by humans which they can mistake for food. They may also become entangled in marine debris, including lost or discarded fishing gear, and can be killed or seriously injured.

Climate Change

For all sea turtles, a warming climate is likely to result in changes in beach morphology and higher sand temperatures, which can be lethal to eggs or alter the ratio of male and female hatchlings produced. Rising seas and storm events cause beach erosion, which may flood nests or wash them away. Changes in the temperature of the marine environment are likely to alter the abundance and distribution of food resources, leading to a shift in the migratory and foraging range and nesting season of hawksbills.

Scientific Classification

Kingdom	Animalia
Phylum	Chordata
Class	Reptilia
Order	Testudines
Family	Cheloniidae
Genus	*Eretmochelys*
Species	*imbricata*

What We Do

Conservation & Management

Since 1977, NOAA Fisheries and the U.S. Fish and Wildlife Service have shared jurisdiction of sea turtles listed under the ESA. A Memorandum of Understanding outlines our specific roles: NOAA Fisheries leads the recovery and conservation efforts for sea turtles in the marine environment, and the U.S. FWS leads the conservation and recovery efforts for sea turtles on nesting beaches.

We are committed to the protection and conservation of hawksbill turtles by:

- Working with partners to ensure compliance with national, state, and U.S. territory laws to protect sea turtles

- Cooperating with international partners to implement conservation measures and establish agreements, such as international treaties that protect sea turtles
- Researching, developing, and implementing changes to fishing gear practices and/or fishing gear modifications (e.g., turtle excluder devices), using large circle hooks in longline fisheries, and implementing spatial or temporal closures to avoid or minimize bycatch
- Designating critical habitat areas essential for the conservation of hawksbill turtles
- Protecting and monitoring hawksbill turtles in the marine environment and on nesting beaches
- Conducting research on threats and developing conservation measures that reduce threats and promote recovery
- Collecting information on the species biology and ecology to better inform conservation management strategies and to assess progress toward recovery
- Conducting and supporting education and outreach efforts to the general public by raising awareness on threats to sea turtles, highlighting the importance of sea turtle conservation, and sharing ways people can help sea turtles
- Working with partners to study and raise awareness about illegal sea turtle trade

Learn more about our conservation and management efforts ›

Science

We conduct various research activities on the biology, behavior, and ecology of hawksbill sea turtles. The results of this research are used to evaluate population trends, inform conservation management strategies, and to assess progress toward recovery for this imperiled species. Our work includes:

- Monitoring populations through vessel-based or aerial surveys, nesting beach studies, satellite tracking, genetics, and mark-recapture (flipper tagging) studies
- Studying foraging and reproductive behavior to understand demographics, physiology, habitat use, and resource requirements
- Tracking individuals over time to understand important aspects of their life history such as growth and age to maturity
- Evaluating life history and population health information from stranding and fisheries bycatch datasets
- Understanding impacts of change in environmental and ocean conditions on sea turtle abundance, distribution, and demographics
- Estimating population abundance and analyzing trends
- Monitoring fisheries impacts and designing fishing gear to minimize bycatch during commercial and recreational fishing operations
- Capacity building and training to share the latest scientific techniques and tools to monitor sea turtle populations globally

Learn more about our research >

How You Can Help

Reduce Ocean Trash

Reduce marine debris and participate in coastal clean-up events. Responsibly dispose of fishing line - lost or discarded fish line kills hundreds of sea turtles and other animals every year. Trash in the environment can end up in the ocean and harm marine life.

Reduce plastic use to keep our beaches and oceans clean—carry reusable water bottles and shopping bags.

Refrain from releasing balloons—they can end up in the ocean where sea turtles can mistake them for prey like jellyfish or become entangled in lines.

Learn more about marine debris >

Keep Your Distance

Admire sea turtles from a respectful distance by land or sea and follow these guidelines:

Don't disturb nesting turtles, nests, or hatchlings. If interested, attend organized sea turtle watches that know how to safely observe sea turtles.

Never feed or attempt to feed or touch sea turtles as it changes their natural behavior and may make them more susceptible to harm.

Boat strikes are a serious threat to sea turtles. When boating, **watch for sea turtles in the water, slow down, and steer around them**. If you encounter them closer than 50 yards, put your engine in neutral to avoid injury. Remember, *Go Slow, Sea Turtles Below!*

Learn more about our marine life viewing guideline >

Protect Sea Turtle Habitat

Beaches are paramount for healthy sea turtle populations since females come to the shore to deposit their eggs into nests.

Keep nesting beaches dark and safe at night. Turn off, shield, or redirect lights visible from the beach—lights disorient hatchlings and discourage nesting females from coming onto beaches to lay their eggs.

After a day at the beach, remove recreational beach equipment like chairs and umbrellas so sea turtles are not entrapped or turned away. Also, fill in holes and knock down sandcastles before you leave—they can become obstacles for nesting turtles or emerging hatchlings.

Do not drive on sea turtle nesting beaches—vehicles can deter females from nesting, directly strike hatchlings and nesting turtles, damage incubating nests, and create ruts that prevent hatchlings from reaching the sea.

Report Marine Life in Distress

If you see a stranded, injured, or entangled sea turtle, contact professional responders and scientists who can take appropriate action. Numerous organizations around the country are trained and ready to respond.

Learn who you should contact when you encounter a stranded or injured marine animal >

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In the Spotlight
Management Overview

Hawksbill turtles are protected under the Endangered Species Act and listed as endangered. This means that the hawksbill turtle is in danger of extinction throughout all or a significant portion of its range. NOAA Fisheries is working to protect hawksbills in many ways, with the goal of conserving and recovering the species worldwide.

In the United States, NOAA Fisheries and the U.S. Fish and Wildlife Service have joint jurisdiction for sea turtles, with NOAA having the lead in the marine environment and U.S. FWS having the lead on the nesting beaches. Both federal agencies, along with many state and U.S. territory agencies and international partners, are working together to conserve and recover sea turtles and have issued regulations to eliminate or reduce threats to sea turtles.

Recovery Planning and Implementation

Recovery Action

To help identify and guide the protection, conservation, and recovery of sea turtles, the ESA requires NOAA Fisheries and the U.S. FWS to develop and implement recovery plans which provide a blueprint for conservation of the species and measurable criteria to gauge progress toward recovery.

The major recovery actions for hawksbill turtles include:

- Protecting sea turtles on nesting beaches and in marine environments
- Protecting nesting and foraging habitats
- Reducing bycatch in commercial, artisanal, and recreational fisheries
- Reducing the effects of entanglement and ingestion of marine debris
- Reducing vessel strikes in coastal habitats
- Working with partners internationally to protect turtles in all life-stages
- Supporting research and conservation projects consistent with Recovery Plan priorities

Two recovery plans have been developed to recover and protect hawksbill turtle populations that are found in the U.S. waters. Each is focused on the unique needs of hawksbill turtles in the various regions.

- U.S. Pacific Hawksbill Turtle Recovery Plan
- U.S. Caribbean, Atlantic, and Gulf of Mexico Hawksbill Turtle Recovery Plan

The highly migratory behavior of sea turtles makes them shared resources among many nations, so conservation efforts for sea turtle populations must extend beyond national boundaries. This necessitates international collaboration and coordination. Learn more about international conservation efforts below.

Implementation

NOAA Fisheries is working to minimize effects from human activities that are detrimental to the recovery of hawksbill turtles in the United States and internationally. Together with our partners, we undertake numerous activities to support the goals of the hawksbill turtle recovery plans, with the ultimate goal of species recovery.

Efforts to conserve hawksbill turtles include:

- Protecting habitat and designating critical habitat
- Reducing bycatch
- Rescue, disentanglement, and rehabilitation
- Eliminating the killing of turtles and the collection of their eggs
- Eliminating the harassment of turtles on nesting beaches and foraging habitats through education and enforcement
- Consulting with federal agencies to ensure their activities are not likely to jeopardize the continued existence of listed species

Two Hawaiian hawksbills interacting. Photo: NOAA Fisheries/Don McLeish.

Critical Habitat

Once a species is listed under the ESA, NOAA Fisheries evaluates and identifies whether any marine areas meet the definition of critical habitat. Those areas may be designated as critical habitat through a rulemaking process. A critical habitat designation does not set up a marine preserve or refuge. Rather, federal agencies that undertake, fund, or permit activities that may affect designated critical habitat areas are required to consult with NOAA Fisheries to ensure that their actions do not adversely modify or destroy these designated critical habitats.

In 1998, NOAA Fisheries designated critical habitat for hawksbill turtles to include the coastal waters surrounding Mona and Monito Islands, Puerto Rico. Coral reefs, like those found in the waters surrounding Mona and Monito Islands, are widely recognized as the primary foraging habitat of hawksbill turtles in the U.S. Caribbean. There is no critical habitat designated for hawkbills in the Pacific.

View the Hawksbill sea turtle critical habitat map ›

Conservation Efforts

Reducing Bycatch

NOAA Fisheries is working to reduce the bycatch of sea turtles in commercial and artisanal fisheries. Our efforts are focused on documenting bycatch, understanding how, why, and where sea turtles are bycaught, and how to reduce that bycatch. We work with partners and industry to develop modifications to fishing gear and practices to reduce bycatch and/or reduce bycatch injuries. These modifications are required in certain U.S. commercial fisheries including gillnets, longlines, pound nets, and trawls that unintentionally interact with sea turtles. Measures include:

- Gear modifications
- Changes to fishing practices
- Time/area closures

In the United States, NOAA Fisheries has worked closely with the shrimp trawl fishing industry to develop Turtle Excluder Devices (TEDs) to reduce the mortality of sea turtles bycaught in shrimp trawls. TEDs are required in the shrimp otter trawl fishery and, in early 2021, in larger vessels participating in skimmer trawl fishery.

Since 1989, the U.S. has prohibited the importation of shrimp harvested in a manner that adversely affects sea turtles. The import ban does not apply to nations that have adopted sea turtle protection programs comparable to that of the United States (i.e., require and enforce the use of TEDs) or to nations where bycatch in shrimp fisheries does not present a threat to sea turtles (for example, nations that fish for shrimp in areas where sea turtles do not occur). The U.S. Department of State is the principal implementing agency of this law while NOAA Fisheries serves as technical advisor and provides extensive TED training throughout the world.

We are also involved in cooperative gear research projects, implementation of changes to gear and fishing practices, and safe handling protocols designed to reduce sea turtle bycatch and mortality in the Gulf of Mexico and Atlantic pelagic longline fisheries, the American Samoa and Hawaii-based longline fisheries, the Atlantic sea scallop dredge fishery, and non-shrimp trawl fisheries in the Atlantic and Gulf of Mexico.

Fisheries Observers

Bycatch in fishing gear is the primary human-caused source of sea turtle injury and mortality in U.S. waters. The most effective way to learn about bycatch is to place observers aboard fishing vessels. Observers collect important information that allows us to understand the amount and extent of bycatch, how turtles interact with the gear, and how bycatch reduction measures are working.

NOAA Fisheries determines which fisheries are required to carry observers, if requested to do so, through an annual determination. Observers may also be placed on fishing vessels through our authorities under the Magnuson-Stevens Act.

Responding to Strandings and Entanglements

A stranded sea turtle is one that is found on land or in the water and is either dead or is alive but unable to undergo normal activities and behaviors due to an injury, illness, or other problem. Most strandings are of individual turtles, and thousands are documented annually along the coasts of the United States and its territories. Organized networks of trained stranding responders are authorized to recover dead turtles or assist live turtles and document important information about the causes of strandings. These networks include federal, state, and private organizations. The actions taken by stranding network participants improve the survival of sick, injured, and entangled turtles while also helping scientists and managers expand their knowledge about threats to sea turtles and causes of mortality.

Because sea turtles spend most of their life at sea and out of sight, information learned from strandings are an important way for us to identify and monitor problems that threaten sea turtle populations.

Within the United States and its territories, there are three regional networks that serve to document and rescue stranded and entangled sea turtles:

- Atlantic Ocean, Gulf of Mexico, and Caribbean: Coordinated under the Sea Turtle Stranding and Salvage Network (STSSN)
- Pacific Ocean (continental U.S. West Coast): Coordinated by NOAA's West Coast Regional Office
- Pacific Islands (Hawaii, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands): Coordinated by NOAA's Pacific Islands Fisheries Science Center and the Pacific Islands Regional Office

The actions taken by stranding network participants improve the survivability of sick, injured, and entangled turtles while also helping scientists and managers to expand their knowledge about diseases and other threats that affect sea turtles in the marine environment and on land.

International Conservation Efforts

The conservation and recovery of sea turtles requires international cooperation and agreements to ensure the survival of these highly migratory animals. We work closely with partners in many countries across the globe to promote sea turtle conservation and recovery. Two international agreements specifically focused on sea turtle conservation are:

- Indian Ocean - South-East Asian (IOSEA) Marine Turtle Memorandum of Understanding
- Inter-American Convention (IAC) for the Protection and Conservation of Sea Turtles

Additional international treaties and agreements that also protect sea turtles include:

- Convention on International Trade in Endangered Species (CITES): Listed in Appendix I, which prohibits international trade of wild flora and fauna
- Cartagena Convention: Protected under Annex II of the Specially Protected Areas and Wildlife (SPAW) Protocol

Regulatory History

The hawksbill sea turtle was first listed under the Endangered Species Act in 1970. The 2013 ESA 5-year review concluded that the species continues to meet the definition of an endangered species, based on the best available information.

In 1992, we finalized regulations to require turtle excluder devices (TEDs) in shrimp trawl fisheries to reduce sea turtle bycatch. Since then, we have updated these regulations as new information became available and TEDs were modified to improve their turtle exclusion rates.

We have implemented other measures to reduce sea turtle bycatch through regulations and permits under both the ESA and Magnuson-Stevens Act. These requirements include the use of large circle hooks in longline fisheries, time and area closures for gillnets, and modifications to pound net leaders.

See all regulations to protect sea turtles >

Key Actions and Documents

Actions & Documents | Incidental Take

Final Annual Determination for 2020

NOAA Fisheries publishes the final Annual Determination (AD) for 2020, pursuant to its authority under the Endangered Species Act. Through the AD, NOAA Fisheries identifies U.S. fisheries operating in the Atlantic Ocean, Gulf of Mexico, and Pacific…

- Final Annual Determination for 2020 (85 FR 53684; August 31, 2020)
- Proposed Annual Determination for 2020 (85 FR 3880; January 23, 2020)
- More Information: Sea Turtle Annual Determination

Final Rule , National
EFFECTIVE
09/30/2020

Hawksbill Sea Turtle 5 Year Review

We, NOAA Fisheries, announce the availability of the 5-year review for hawksbill sea turtles.

- Notice of Initiation of 5-year Review, 2012 (77 FR 61573)
- Hawksbill Sea Turtle 5-Year Review (2013)

Notice , National

PUBLISHED
October 10, 2012

Critical Habitat for Hawksbill Sea Turtle

Pursuant to the Endangered Species Act of 1973 (ESA), NMFS is designating critical habitat for the threatened green sea turtle (Chelonia mydas) to include coastal waters surrounding Culebra Island, Puerto Rico, and the endangered hawksbill sea turtle …

- Final Rule (63 FR 46693)
- Hawksbill Turtle Critical Habitat Map and GIS Data

Final Rule , Southeast
EFFECTIVE
October 2, 1998

Recovery Plans for Hawksbill Sea Turtle

We, NOAA Fisheries, announce the availability of recovery plans for U.S. Pacific and U.S. Caribbean, Atlantic, and Gulf of Mexico populations of hawksbill sea turtles.

- Notice of Plan for U.S. Pacific (63 FR 28359)
- Notice of Plan for U.S. U.S. Caribbean Sea, Atlantic Ocean, and Gulf of Mexico …
- Recovery Plan for U.S. Pacific Populations (1998)
- Recovery Plan for the U.S. Caribbean Sea, Atlantic Ocean, and Gulf of Mexico (1…

Notice , National
PUBLISHED
May 22, 1998

1 2 Last »

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Science Overview

NOAA Fisheries conducts research on the biology, behavior, and ecology of the hawksbill sea turtle. The results of this research are used to inform management decisions and enhance recovery efforts for the species.

Population Assessments

Sea turtle population assessments ideally include information on the species' abundance and distribution, life history, and human impacts. This information can help NOAA Fisheries evaluate the effectiveness of conservation and recovery measures, and can help guide actions to enhance

recovery. To estimate population abundance, researchers conduct aerial and vessel-based surveys of selected areas and capture and mark turtles in the water and on beaches. We also incorporate data collected on nesting beaches via stranding networks and from fisheries observer programs. Other information that informs sea turtle population assessments includes population structure (genetic analyses), age to maturity, survivorship of the various life stages (e.g., hatchling, juvenile, adult) foraging and reproductive behavior, movement and distribution, and habitat studies.

Tagging and Tracking Studies

Satellite telemetry allows researchers to track sea turtles as they migrate between and within foraging and nesting areas. Tags are designed and attached in a manner that minimizes disturbance and/or harm to the turtle. The data help us understand migration patterns, identify feeding areas, and identify where turtles overlap with their primary threats (e.g., fisheries, vessel traffic).

Hawksbill swimming at Rose Atoll, American Samoa. Photo: NOAA Fisheries

Research to Reduce Bycatch in Fishing Gear

We observe fisheries to understand the level of sea turtle bycatch and the ways in which turtles interact with fishing gear. We work with partners and industry to develop modifications to fishing gear and/or fishing practices to reduce sea turtle bycatch while at the same time retaining a sustainable catch of targeted species. These efforts include the development of Turtle Excluder Devices (TEDs) for use in trawl fisheries, use of circle hooks and certain bait types in longline fisheries, time and area closures/mesh size restrictions and low profile designs for gillnets, and modifications to pound net leaders.

Learn more about our fishing gear research ›

Sea Turtle Genetics

NOAA Fisheries' National Sea Turtle Molecular Genetics Center serves as a worldwide central repository for sea turtle tissue and DNA samples and constitutes a major area of research supporting sea turtle conservation. For example, a turtle's genetic "fingerprint" can be used to determine which nesting population it originated from.

Learn more about our turtle genetics and isotope studies ›

Life History Studies

Life history studies include gathering information on such things as migration patterns, where turtles nest and forage, growth rates, age to maturity, and sex ratios. This information is important in understanding key biological parameters that influence population trends and conservation status.

Documents

DOCUMENT

Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico

Programmatic biological opinion on the Gulf of Mexico oil and Gas Program in federal waters…

Southeast, National

DOCUMENT

Integrated Bayesian models to estimate bycatch of sea turtles in the Gulf of Mexico and southeastern U.S. Atlantic coast shrimp otter trawl fishery

Elizabeth A. Babcock, Michael Barnette, James Bohnsack, John Jeffery Isely, Clay Porch, Paul M…

Southeast

DOCUMENT

Potential impacts of artificial reef development on sea turtle conservation in Florida

This study investigated the impacts Florida artificial reefs may have on sea turtle populations,…

Southeast

DOCUMENT

Biological Opinion on the Issuance of Permit No. 20315 for Scientific Research on Sea Turtles in the United States Virgin Islands

Biological opinion on a permit application for continuing a study of green sea turtle (South…

Southeast

More Documents >

Data & Maps

DATA

Recovery Action Database

Tracks the implementation of recovery actions from Endangered Species Act (ESA) recovery plans.

National

MAP

Virginia Pound Net Regulated Area Map & GIS Data

New England/Mid-Atlantic

MAP

Summer Flounder Sea Turtle Protection Area Map & GIS Data

New England/Mid-Atlantic

MAP

Large Mesh Gillnet Restricted Area Map & GIS Data

New England/Mid-Atlantic

More Data and Maps ›