

# ABOUT THE TURTLE HOSPITAL

The Turtle Hospital is the only state-certified veterinary hospital in the world for sea turtles. It relies on local volunteers to assist with feeding and caring for the turtles. Many veterinarians, both local and non-local, volunteer their time as well.

The Turtle Hospital is equipped with up-to-date medical equipment needed for performing a variety of surgeries on different species and sizes of sea turtles. More than half of this equipment has been donated by local hospitals and doctors.



*Turtle receives x-ray.*

The Turtle Hospital treats a variety of turtle ailments, such as flipper amputations caused by fishing line and trap rope entanglements, shell damage caused by boat collisions, and intestinal impactions caused by ingestion of foreign material, such as plastic bags, balloons and fishing lines. The hospital also receives more than a hundred injured and disoriented hatchling sea turtles every summer. They are nursed back to health and released as soon as possible.

The most common surgery performed is the removal of debilitating viral tumors called fibropapilloma. This disease affects as many as half of the green turtles in the Keys and is found in many green turtle populations throughout the world.

The Turtle Hospital and the University of Florida have been doing cooperative research into the causes of fibropapilloma. This is currently the only global disease affecting wild animals. We have successfully been able to transmit the disease, proving that it is infectious, and we are on the last stage of isolating the cause.

In an average year, the Turtle Hospital receives as many as 70 injured sea turtles and has released more than 30 rehabilitated sea turtles back to the wild. To date the hospital has released more than 500 sea turtles.



*The Turtle Hospital has an ambulance (above) to transport sea turtles during rescue and releases. The rehab center (right) is built around a large salt water pool with many individual tanks and an elaborate pumping and filtration system to isolate diseased turtles. The pool is partially screened from the Florida Keys sunshine.*



*The meeting room (below) is used for educational purposes. The laboratory (below, right) is used to prepare medications and to conduct routine blood testing of sea turtles.*



The Turtle Hospital  
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www.theturtlehospital.org

*A team of volunteers release a loggerhead turtle back to the ocean after months of rehabilitation.*



THE TURTLE HOSPITAL  
RESCUE  
REHABILITATION  
RELEASE



THE TURTLE HOSPITAL  
2396 OVERSEAS HIGHWAY  
MARATHON, FL 33050



RESCUE REHABILITATION RELEASE

*Turtle Hospital staff veterinarian Dr. Doug Mader and hospital director Ritchie Moretti amputate a green sea turtle flipper after monofilament entanglement.*



While there are agencies that monitor sea turtle populations and their habitat, there are no state or federal agencies to rehabilitate injured sea turtles. Many injured or ill sea turtles can be helped. The Turtle Hospital was opened in Marathon, Florida in 1986 to meet this need. The hospital has four main goals:

- Repair injured sea turtles and return them to the wild.
- Educate the public through outreach programs.
- Conduct and assist with research in conjunction with state universities to aid the sea turtles.
- Work for environmental legislation to make the beaches and water safe and clean for sea turtles.

The Turtle Hospital is a 501(c) 3 charitable corporation. The Hidden Harbor Motel provides the space and the buildings needed to house and care for the sea turtles. The hospital is not open to the public, but registered guests of Hidden Harbor Motel may tour the hospital and view recovering sea turtles at special times.

AND RELEASE  
RESCUE, REHABILITATION

## TURTLES IN THE KEYS

Worldwide there are seven species of sea turtles; five of these are found in the waters of the Florida Keys. These are:

**Loggerhead**-(*Caretta caretta*), a carnivore, eats mainly shrimp, lobster, conch, can reach up to 300 pounds, is the most common sea turtle found in Florida waters, inhabits coral reefs, bays, and estuaries. It is noted for its large head, and has some red coloration. Status: THREATENED.

**Green**-(*Chelonia mydas*), a herbivore, eats mainly sea grasses (*Thalassia*, and *Zostera*), can reach up to 500 pounds, and is named after the green fat in its body. Its meat was prized by turtle connoisseurs. Status: ENDANGERED.

**Hawksbill**-(*Eretmochelys imbricata*), is an omnivore that eats mainly sponges, can weigh up to 150 pounds, lives near rocky places and coral reefs. It is so named because its mouth is similar to a hawk's beak. Status: ENDANGERED.

**Leatherback**-(*Dermochelys coriacea*), eats mainly jellyfish. The largest reptile alive, it is pelagic in nature, and can weigh up to 2000 pounds. Status: ENDANGERED.

**Kemps Ridley**-(*Lepidochelys kempi*), is carnivorous, eats mainly crabs and shrimp, and may weigh up to 100 pounds. It was named after a Key West fisherman. Status: ENDANGERED.



Juvenile green turtle.

## SAVING THE SEA TURTLE THROUGH EDUCATION

Sea turtles have inhabited our oceans for more than 200 million years. They are our true link to the Triassic times. These reptiles originally roamed the land with the dinosaurs, and through evolution, traded legs for flippers and tear glands for salt glands to enable them to make their home in the sea. With their powerful front flippers, sea turtles can sail through the ocean at speeds up to 25 miles per hour. While swimming, these reptiles need to breathe air every five to ten minutes. While resting, some species can hold their breath for up to 3 to 5 hours. These wonderful animals are believed to live longer than 75 years.

The sea turtle is a magnificent creature whose plight on earth has seen better times. Five of the seven species are now listed on the endangered species list, and all are listed as protected. There is a real possibility that some or all may become extinct in the next hundred years. We need to learn and teach others about these animals so that we have sea turtles for following generations to experience.

### NESTING

Sea turtles spend most of their lives in the ocean, but the females come ashore on beaches during nesting season. Male sea turtles are rarely seen on land. In the Keys sea turtles undergo breeding migration at the beginning of April. Males and females migrate to mating areas near nesting beaches. Sea turtles do not mate for life.

Most nesting occurs at night several weeks after the female's first encounter with the male. In the Florida Keys nesting begins in early May. The female sea turtle often returns to the beach where she was hatched to lay her eggs. She comes ashore, digs a hole with her hind flippers and dispenses approximately 100-150 soft, rubbery ping-pong ball shaped eggs. She then covers the eggs or clutch with sand, and returns to the ocean, leaving her eggs to hatch on their own in approximately two months. The female may nest up to six times in one season. In the Florida Keys, the first hatchlings emerge from their nests in the early part of July.

Sea turtles breed after 15-20 years of age. Males have a long tail that grows past their shell at maturity. Females have a short tail that does not extend past the shell.



Hatchlings emerge.

### HATCHLINGS

Baby turtles develop for two months inside their shells under the sand. When they mature enough to hatch, they use a small egg tooth on the tip of their nose to break out of their shell. During a period of 2-5 days, they work together in their clutch to climb upwards to the surface. They breathe small breaths of air in between grains of sand. When all have hatched, they burst through the sand together and scamper down the beach towards the ocean. They are attracted to the sea by light, and normally the sky over the sea is the light stimulus for them. With a burst of energy the hatchlings make their way to the sea. Predators such as raccoons and crabs harass them as they move towards the water. In the water, they begin a frenzied swimming to reach safe havens offshore, avoiding other predators such as sharks, fish, and birds. Only one in a thousand of these hatchlings are expected to make it to adulthood.

In some instances, hatchlings may not make it to the water because of artificial lighting on the beaches. Businesses or homes that have lights facing beach areas disorient these hatchlings. Some may wander into lighted parking lots and be run over by vehicles or overheat in the hot sun on the next day. Homes with beach lighting may attract the hatchlings towards the house where they may be attacked by family pets, raccoons, fall into sewage drains, and even swimming pools.



Swimming hatchling

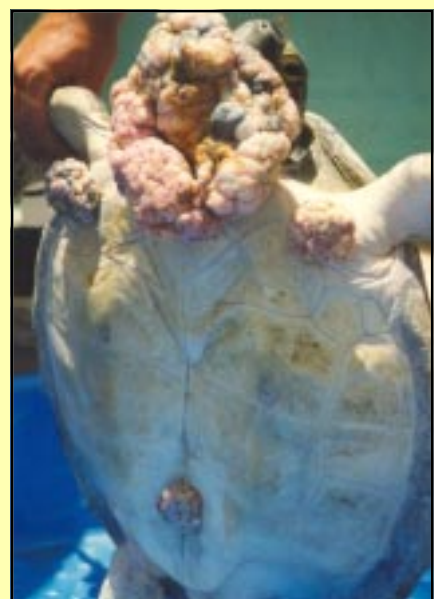
## THREATS TO SEA TURTLE SURVIVAL IN THE FLORIDA KEYS

Human activities have increased stress on populations of sea turtles around the world. Special hazards face sea turtles in the Florida Keys.

**Monofilament entanglement**-Careless fishermen who discard fishing line in the water introduce a severe hazard to sea turtles, who often become entangled in the line or eat it. Entangled turtles may lose their flippers if the line cuts off the blood supply to the limb. Turtles who ingest monofilament may die from strangulation or from hooks remaining on the line.

**Rope and net entanglement**-Each year many turtles become entangled on the ropes that connect lobster and stone crab traps with buoys on the surface. If they become caught at depth, they cannot get to the surface for air, and drown. Turtles may get trap lines wrapped around their flippers and eventually lose their limbs.

**Boat accidents**-Even careful boaters sometimes run into sea turtles. Turtles may die from propeller injuries to their head and shells, blunt trauma, loss of blood, punctured lungs, and damage to internal organs.



This young green turtle has numerous fibropapilloma tumors on his soft body tissue. These tumors are removed by laser surgery.

**Oil spills and tar**-Chemicals from boats and tankers can pollute the water. This harms turtles by getting into their eyes, mouth and lungs, and may cause suffocation, drowning, toxicity and ultimately death.

**Intestinal impaction**-When turtles ingest debris such as cigarette filters (which appear similar to shrimp) and plastic bags (which look like jelly fish) they often develop intestinal tract impacts which may ultimately cause death.

**Coastal development**-Humans and turtles both like the same environment-beaches. Increased building along coastal waters destroys nesting habitat. Improper or excess lightening from coastal structures can disorient turtle hatchlings when they emerge from their nests, making it impossible for them to find the safety of the ocean.

**Fibropapilloma tumors**-In recent years many turtles have developed fibropapilloma tumors. These are a soft tissue tumor caused by a herpes-like virus. Turtles with these tumors are now found in warm coastal waters globally. Green turtles are especially vulnerable to these tumors, but they have been documented in all species. The tumors may form on the eyes, leaving the turtle unable to feed or avoid predators. They may grow on any soft tissue, including flippers or internally.



This sea turtle lost its left flipper because of monofilament entanglement.



Propeller marks are clearly visible on this loggerhead.

## WHAT TO DO IF YOU FIND A SICK OR INJURED SEA TURTLE?

Since sea turtles are a protected species, you must have a permit issued by the State of Florida to work with them. If you see a sick, injured or dead sea turtle, please call Florida Fish & Wildlife Conservation Commission at 1-888-404-FWCC.

## HOW CAN WE HELP SEA TURTLES?

Humans and sea turtles can exist together. There are actions that we can do to improve their survival.

- Use trash receptacles for debris, cigarette filters, plastic bags, monofilament and any material that might make its way into the ocean.
- Watch for turtles while boating. Do not approach them as they may swim under your boat and sustain propeller injuries. Enjoy from a distance.
- During nesting seasons, make sure all lights facing the beach are off or have proper filters installed, keep dogs off the nesting sites, and no fires on beaches.
- Participate in local beach and reef cleanups.
- If you find a nesting female, do not disturb her with quick movements or shining flashlights, as this may disrupt her nesting.
- Support facilities that rescue, rehabilitate and release sick and injured sea turtles.
- Do not buy sea turtle products-jewelry, oil, leather, meat or eggs.
- Purchase a Florida Sea Turtle license plate.



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