

Propelling to Extinction: The Truth behind Recreational Boating

Grace Sampson

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It's a mild 85 degrees in Marathon, Florida with a slight breeze blowing in from the East. The water is smooth with only a light chop, optimal conditions for a boat ride out on the water. You are aware of a phenomenal fishing spot off the coast of Sombrero Reef, perfect for Yellow Fin Snapper. Unfortunately it gets overrun by charter boats around noon. Carelessly you speed towards the reef moving at about 30 mph, 5 mph over the speed limit. Unexpectedly your boat is struck by something of a larger size. Within a couple of seconds the boat is continuing on towards the reef as if nothing ever happened. What you don't know is your boat just impacted a Loggerhead sea turtle that was later taken to a rehabilitation center on the coast where it was euthanized because of serious infection.

A boat propeller has the ability to slice through a turtle's shell with ease. If the turtle goes unnoticed, infection becomes a serious issue. Even a hit by a boat's hull can cause major deformities to a sea turtle's shell. This "Bubble Butt Syndrome," leaves air trapped under the shell causing the turtle to float helplessly at the surface until a rescue. Weights are often used to submerge turtles but, they eventually slip off rendering the turtle back to its original state. Since there is not a permanent fix to this issue many become permanent residents at a rehabilitation facility or aquarium, never being released back to their ocean home.

What you might think of as a fun charter fishing trip with your family might be the cost of a turtle's life. If a turtle ingests a fishing hook it can cause serious damage to the digestive tract. Turtles are attracted to the bait used to catch fish, once hooked they can no longer reach the

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surface to breath. Considering the global fishing feet is 2.5 times larger than what the ocean is capable of supporting, it poses a big threat on both turtles and fish. If the hook is not passed or rusted away, it could have to be surgically removed. In addition, the fishing line you use on your charter boat can take up to 600 years to biodegrade, so anything left behind could easily get caught on a turtle, shark, dolphin, or coral. Turtles move their flippers in a circular fashion so a fishing line could easily wrap around one of the flippers possibly causing the turtle to drown.

If you decide to take a boat out to one of the reefs on your family vacation, be weary of the dangers. When a boat enters shallow water the propellers stir up the sediments lying loosely on the ocean floor, causing prop dredging. This leaves a trail of calcium carbonate silt to block the sunlight and suffocate the bottom-dwelling organisms in the area. The propeller also tears up seagrasses and cuts into channels in the seagrass beds that will never grow back. The bile discharge from your boat could be the cause of oil pollution that reduces conditions for healthy coral growth. This contributes to the biggest threat to coral reefs: water quality decline.

When you're not catching your own fish, you might be dining at one of the seafood restaurants in town, but did you ever think about how that fish was caught. Commercial fisherman frequently capture sea turtles migrating through their fishing areas. Once caught under nets or on lines, they are unable to reach the surface for air. The lucky ones might escape with a few external injuries from entanglement, but the fate of others is much worse. 40% of the animals caught in these fisheries are discarded as trash, usually dead or severely injured.

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On late night boat rides with friends it can be very easy to throw something off the boat assuming it will disintegrate in a day or so. In reality it usually takes most plastics about 450 years to fully decompose. When thrown into the ocean it becomes marine debris. One small portion of trash from one boat contributes to large patches the size of Texas forming in the middle of the ocean. These patches aren't only harmful to marine life, but the toxins they pour into our ocean are harmful for everyone. Animals like sea turtles then mistake this trash for other animals they prey upon.

When you're late to an event you tend to go over the speed limit without thinking about the safety of yourself and others. When you're boating in the ocean just being alert could prevent the majority of propeller impacts on sea turtles. Propeller guards have also been known to reduce the injury of turtles and several other forms of marine life. These special propeller guards reduce the turbulence and shear that is harmful to marine life. Marine Drives (a more specific type of propeller guard) provide the most protection in the situation that an animal is struck by a boat. If every boat was required to have a standard propeller guard, it could significantly decrease the boat attacks.

When you go to the grocery store you generally select the name brand products that are well-known to the general public. However I encourage you to make sure the fish you buy is caught by turtle-friendly industries. Make sure if you're fishing with a trawl net you utilize a Turtle Excluder Device, a net insert with a large escape opening. The Turtle Excluder Device or TED was originally created to help save the turtle populations from shrimp fishing. The

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TED's design is a metal grid of bars that attaches at the net with an opening at the top or bottom. Although this design has proven very successful these devices are not well-enforced in or outside the U.S. Donating to the NOAA and reporting any vessels caught without TEDs will lessen the chances of turtles getting stuck in shrimp nets.

But this isn't just directed at big fishing industries, when you fish on a recreational boat the use of circle hooks rather than "J" hooks reduce the number and severity of sea turtle interactions. When a small test was conducted by NOAA Fisheries to see the difference a circle hook would make, encounters with leatherback and loggerhead turtles were reduced by 65 and 90 percent. If everyone was required to use these hooks the differences in the turtle population would be drastic.

Although there is not something you can put on your boat to prevent the stirring of sediment at the bottom of reefs you can be aware of the posted signage around reefs. Staying around the borders of the reef can easily prevent the ripping of sea grass beds and prop dredging. Anchoring can be tricky, but it is vital to the reef that you don't anchor on top of the coral. When snorkeling, even touching bits of coral can be dangerous to both you and the plant. Animals like turtles feed on the fish living on the reef and when their population decreases it affects the turtles as well.

Often you might see a debris floating by you well you are out on a boat ride. Picking up your trash along with the trash of others is essential to the well-being of our oceans. Using biodegradable items and reusable water bottles when relaxing on the beach will also make

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a huge difference in the health of the planet. Participating in community wide trash collection days also help to beautify the beaches and keep the ocean free of human waste.

So on a mild 85 degree day in Marathon, Florida when fishing conditions are optimal you decide to head to your favorite fishing spot off the coast of Sombrero Reef. You know that it is easily over run with other boaters looking for Yellow Fin Snapper. Will you speed over carelessly knowing you could endanger yourself or another animal, or will you wait until another day when you can go at your leisure? Sometimes it's those little choices that make the biggest difference.

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Works Cited

"Boaters Tear Up Delicate Seagrass." *Tribunedigital-sunsentinel*. N.p., 11 Jan. 2006. Web. 21 Apr. 2016.

"Human Impacts on Marine Environments." *Science Learning Hub RSS*. N.p., n.d. Web. 21 Apr. 2016.

Nienaber, Georgianne. "Speedboats and Turtles Equal a Deadly Combination." *The Huffington Post*. TheHuffingtonPost.com, n.d. Web. 21 Apr. 2016.

"PropellerSafety.com." *PropellerSafetycom RSS*. N.p., n.d. Web. 21 Apr. 2016.

"The Turtle Hospital. Rescue, Rehab, Release." *The Turtle Hospital Rescue Rehab Release*. N.p., n.d. Web. 21 Apr. 2016.

"Year-long Study Shows Circle Hooks Help Save Sea Turtles." *WorldWildlife.org*. World Wildlife Fund, 23 June 2005. Web. 21 Apr. 2016.