

SEA TURTLES ARE AFFECTED BY PLASTIC

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ENVIGADO

2017

INDEX

Pag.

1. Objectives.....	1
2. Questions.....	2
3. Sea turtles.....	3
4. Conclusions.....	4
Bibliography.....	5

OBJECTIVES

- To know how sea turtles are affected by plastic.
- Identify why the plastic is affecting the turtles.
- To inform how can we help the turtles.

QUESTIONS

- How long do sea turtles live?
- Why just plastic cause sea turtles dead?
- What can we do to prevent the turtles extinct?

INTRODUCTION

The role plastic products play in the people's daily life all over the world is endless. 300 million tons of plastic are consumed each year. We have only begun to see the far reaching consequences of plastic pollution and how it affects us and the turtles. There is many plastic trash flowing the ocean like: bags, bottle caps, cans, lids, straws and synthetic.

Hundreds of thousands of sea turtles, whales, and other marine mammals, and more than 1 million seabirds die each year from ocean pollution and ingestion or entanglement in marine debris. Marine debris is manmade waste that is directly or indirectly disposed of in oceans, rivers, and other waterways.

Most trash reaches the seas via rivers, and 80% originates from landfills and other urban sources.

There are 5 major ocean gyres worldwide. In the Pacific Ocean, the North Pacific Gyre is home to the "Great Pacific Garbage Patch", a large area that is approximately the size of Texas with debris extending 20 feet (6 meters) down into the water column. It's estimated that this "plastic island" contains 3.5 million tons of trash and could double in size in the next 5 years. All of the trash that this Island has goes all over the ocean and this make turtles and others mammals to die.

Sea turtles mistake plastics and other garbage as food (such as jellyfish) and ingest it. This mistake causes blockages within their digestive system and eventual death.

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SEA TURTLES

Sea turtles have inhabited the Earth's oceans for the last 100 million years. An important link to marine ecosystems, such as coral reefs and seagrass beds, some sea turtles also eat large numbers of jellyfish and provide a source of income to local communities as a draw for ecotourism. But sea turtle populations have been on the decline. Thousands of marine turtles are accidentally caught by fishing gear each year, and the beaches upon which they depend for nesting are disappearing.



Scientists have found that 50 percent of all sea turtles are ingesting plastic, and this number is only increasing as plastic pollution continues to surge. “These patches are not going away,” says lead author Erik van Sebille, an oceanographer at the University of New South Wales. “The garbage patches will stay there for at least the next thousand years.” Studies show this problem is not only prominent in heavily populated areas like New York City, but also in places like Brazil. Continue reading for more information on how plastic waste is becoming a global issue, and consider these tips on reducing your own plastic consumption.

A new study conducted by the University of Queensland and published in the journal Conservation Biology shows that green turtles are significantly more likely to swallow plastic today than they were in the 1980s. The study found that the likelihood of a green turtle ingesting man-made trash jumped from about 30% to nearly 50% in 2012.

It also confirmed that six of the world's seven species of sea turtles have been found to ingest debris, and all six are listed as globally vulnerable and endangered.

Plastic can be lethal to the turtles who ingest it – the debris can block their stomachs and starve them, or it can puncture their intestinal systems. Plastic can also release toxins when ingested.



These chemicals may be already present in the plastics, or absorbed by the plastic while it is floating in the ocean. Qamar Schuyler, who headed the study, says “the animal may not die of that right away, but it may impact things like their reproductive cycle – and that has longer term consequences.”

Oddly, the study showed that turtles washing up with lots of plastic in their system were not more prevalent in populated areas than they were in other areas of the world. For example, stranded turtles found adjacent to heavily populated New York City showed little or no evidence of debris ingestion, while all of the stranded turtles found near an undeveloped area of southern Brazil had eaten debris. This means that the problem isn't just a matter of local shore clean up.

An international team led by researchers at the University of Exeter set out to define our state of knowledge on the impact of plastics on marine turtles. Their review, published in the *ICES Journal of Marine Science*, shows that, while studies on the subject are somewhat scarce, the existing research finds cause for concern. According to the review, every species of marine turtle has been observed to consume plastic fragments. As visual hunters, sea turtles are at high risk of mistaking plastics for prey—confusing a buoyant plastic bag for a swimming jellyfish, for example.

The Problem: Pollution can have serious impacts on both sea turtles and the food they eat. For example, new research suggests that a disease now killing many sea turtles (fibropapillomas) may be linked to pollution in the oceans and in nearshore waters. When pollution contaminates and kills aquatic plant and animal life, it also destroys feeding habitats for sea turtles. Oil spills and urban runoff of chemicals and fertilizers all contribute to water pollution. An estimated 36% of all marine pollution from oil comes through drains and rivers from cities.

People that live near the beach can start Making a positive difference for sea turtles is as simple as following the five easy steps:

1. Turn off lights near from the beach. Sea turtles use light and reflections from the moon to find their way to the water at night. Artificial lighting confuses them and causes them to head inland instead of out to sea. Artificial lights

also discourage adult females from nesting on the beach. Short of turning off your lights, you can lower the intensity of the lights on your property.

2. Reduce the amount of garbage you produce and clean up trash you see on the beach. Sea turtles can become tangled in plastic and trash both on the shore and in the water. Garbage may also be confused for food and eaten by sea turtles, often resulting in injury or death.

3. Be aware of sea turtle nesting areas and avoid nesting and hatching turtles. Sea turtles are cute, and therefore tempting to touch and observe – but flashlights and people disturb turtles when they are nesting, or trying to nest on the beach, give nesting areas plenty of space, and do not disturb females as they emerge from the ocean looking for a place to nest. Also be conscious of where nesting areas are so that you can avoid trampling the hatchlings as they head to the water.

4. Reduce the amount of chemicals you use. Chemicals can actually wash into the coastal waters, killing plants and animals. It is very important to properly dispose of toxic chemicals and, even better, find alternative products such as biodegradable solutions.

5. Volunteer! There are countless ways in which you can make a positive difference in the lives of sea turtles. Organize a clean-up day with your friends and clear the beach of litter, give a presentation to your neighborhood or local school on things they can do to save sea turtles, and most importantly, talk to others about what they can do to make sure they are not putting these important creatures in danger.

CONCLUSION

- Turtles can be killed directly by ingesting plastics, through blockage of the intestines or through piercing of the intestinal Wall.
- We should start making conscience of how bad the plastics are because it can kill all the sea turtles and get extinct.
- Not only the people that lives near the beach can contribute to protect and take care of the sea turtles. We can also help taking care of them when we recycle plastics and reduce the use of plastics bags.

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