Newsletter, August 3rd, 2021

Garbage Island, an Island without Trees

After over 60 years of continued waste mismanagement, trash from all over the world has made its way into vast areas of ocean and have become known as "Garbage Patches (GPs).” GPs are areas where litter, fishing gear, and other debris collects and floats on the surface all the way down to the sea floor. The GPs consist of various plastic sizes, the smallest particles measure 5mm or less (microplastics), meaning specialized equipment like microscopes must be used to view them.

The GPs accumulate to make large round regions, where they are pulled by rotating whirlpool-like currents called “gyres[1].” These floating junkyards can expand to hundreds, even thousands of miles across with one GP referred to as, “The Great Pacific Garbage Patch,” now twice the size of Texas.

The ocean is a vast and beautiful place but since we have annually dumped approximately 8 million metric tons of trash into it, our ocean’s worth and beauty are in danger. Human negligence has led to the formation of 5 neatly formed giant islands of garbage. These islands are situated near major water vortices with an accumulation equaling over 100 million pounds each. They are the 5 biggest trash heaps

[1]Dianna.parker. (2013, July 11). *Garbage Patches | OR&R’s Marine Debris Program.* Noaa.gov. https://marinedebris.noaa.gov/info/patch.html

on Earth[2]. This situation is so grave that scientists estimate by 2050, the plastics in the ocean will outweigh all the ocean's fish.

GPs are our creation, and they wreak havoc on the environment, impacting the wildlife in a variety of ways.

- Many creatures have found themselves in the unfortunate position of accidentally ingesting plastic. Marine wildlife, such as seabirds, whales, and turtles are dying from starvation by mistaking plastic for prey. They die the slow death of starvation, having their stomachs filled with plastic debris.

- Entanglement and ghost fishing are a serious threat to marine life as lost nets can trap or wrap around animals, entangling and drowning them. Our Plastic debris with loops (six-pack rings, plastic bag handles, packing straps) can easily trap wildlife.

- Marine debris is more than just an eyesore – invasive species can "hitch a ride" across the ocean. Algae, barnacles, crabs and other marine life-forms can live on these "trash rafts" to be carried across oceans by currents. When the invasive species settles in a new environment successfully, they can outcompete native animals for resources or crowd them out of their habitats (neighborhoods) creating major ecological disruptions.

Everyone knows that you cannot clean a sink full of dirty dishes with the tap running. The same applies in ocean pollution, turning off the tap before anything flows downstream. Although we are slowly getting better about waste disposal, large amounts of trash travel from our homes and workspaces to our oceans. Marine pollution is responsible for roughly 80% of all ocean pollutants even though only less than 1/3 of these particles come from land-based sources like littering or wastewater runoff. With only 9% of global plastic being recycled, action through education is key if we are to stop this tidal wave of trash.

At OceanSaviours we have committed our resources in the global goal to reduce our waste. Globally, a wide swath of initiatives are being used to include; debris collecting robotic arms, plastic traps, electric boats to clean water, recycling plastics effectively and cleaning up waterways before the debris travels into the oceans. This crisis calls for a "all hands-on deck" mentality because the overall solution starts with you. Join us, as we join unite with humanity to clean up, what we as a human family have messed up.

[2] *Discover the plastic islands that pollute our oceans.* (n.d.). Iberdrola. https://www.iberdrola.com/environment/5-garbage-patches-in-the-ocean