The pacific ocean garbage patch essay sample

Environment, Pollution



Trash can be observed congregating on the sides of roadways. This trash includes plastic bottles, papers, and cans. The trash seen along the sides of the road is even more pronounced when it is observed after a long winter's thaw. Just like the sides of the road become filled with trash, so does the ocean. This trash is observable in a specific portion of the ocean known as the Pacific Ocean Garbage Patch. The Pacific Ocean Garbage Patch is one of many different types of Environmental Discrimination as it affects sea life, wildlife, and humans, thanks to Environmental Justice new laws are being put in place to increase and promote the use of reusing products and recycling. Environmental Justice is defined by the United States Environmental Protection Agency (2012) as being "the fair treatment and meaningful involvement of all people regardless of race, color, sex, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies" (p. 1).

The main purpose of Environmental Justice is to seek to solve the issue of Environmental Discrimination. Environmental Discrimination or Environmental Racism refers to a situation in which industrial operations, environmental policymaking, and the enforcement (or lack of enforcement) of environmental laws unfairly impact a particular race of people, either intentionally or unintentionally (United States Environmental Protection Agency, 2012, p. 1). Historically many occurrences of Environmental Justice have been at waste disposal, manufacturing and energy production sites in low income communities. Environmental justice began in the early 1980's. It originally emerged as a concept in the United States, fueled by a mounting feeling of unworthiness within African-American, Hispanic and Indigenous

communities that were subject to hazardous and polluting industries located predominantly in their neighborhoods. These neighborhoods were usually were a part of the lower or working classes in America.

The results of the industries pollution took effect on the neighborhoods causing illness and suffering on the people. It made for an unsafe environment to live in (Environmental Protection Agency, 2012, p. 1). The first official case reported on Environmental Justice was in 1982 in Warren County, North Carolina. The county was selected by the state to host a hazardous waste landfill containing thirty thousand cubic yards of contaminated soil. This was a problem because in the township of Warren County sixty-nine percent of the population is non-white and twenty percent of the residents have incomes below the poverty level.

Making Warren County a prime candidate for Environmental Discrimination. The people of warren county were able to make a case with the help of two published studies, one by the government and the other by the United Church of Christ's Commission for Racial Justice because the both provided empirical support for the claims of Environmental racism. More help and support for the disproportionate burden of toxic waste on minority communities came from Robert D. Bullard's book Dumping in Dixie (1990). Bullard became one of the main advocates for environmental justice and has been there since the beginning of it all. (Middendorf, 2011, p. 1) He is often described as the father of Environmental Justice and he continues to do work in the field of Environmental Justice while also being the Dean of the Barbara Jordan-Mickey Leland School of Public Affairs at Texas Southern University in

Houston, Texas. He is the author of seventeen books that address sustainable development, environmental racism, urban land use, industrial facility siting, community reinvestment, housing, transportation, climate justice, emergency response, smart growth, and regional equity. (Johnson, 2011, p. 1)

Within Environmental Justice there are many different topics and cases, the Pacific Ocean Garbage Patch is a more recent case and is having a great impact on not just the environment but also on wildlife, sea life and human beings. The Pacific Ocean Garbage Patch is an enormous collection of trash floating in the middle of the North Pacific Ocean Gyre. The Garbage Patch was created by the movements of the currents creating a circle. The middle of this Gyre is where all the marine pollution comes together and settles, creating a big pool of trash. The Garbage Patch is located roughly between 135 degrees west to 155 degrees west, and 35 degrees north to 42 degrees north (Sherwin, n. d, p. 1). Though, it is hard to get an accurate measurement it is estimated that it is twice the size of Texas. It also extends down below the surface of the water.

The Pacific Ocean Garbage Patch was first found by Captain Charles Moore in 1997. Moore was returning back home to California, after sailing in a race in Hawaii, he plotted a course through the North Pacific Gyre. It was there that Moore came across a vast mass of floating debris that has become known as the Pacific Ocean Garbage Patch. Today, Captain Charles Moore and his crew continue to work towards cleaning up the Pacific Ocean Garbage Patch. He also takes samples of the water and brings them back to his lab where tests

and studies are performed on it (Doucette, 2009, p. 1). The most common items found in the Garbage Patch include: cigarettes, caps and lids to bottles, plastic beverage bottles, plastic bags, food wrappers and containers, cups, plates, forks, knives, and spoons, glass beverage bottles, beverage cans, and paper bags. The trash that is mainly found in the Pacific Ocean garbage patch is plastic. Plastic is a non-biodegradable source making it impossible to get rid of it completely. The result of it being in the ocean causes it to break down, from a combined effect of waves, wind and sun, into tiny little pieces called "microplastics" (Doucette, 2009, p. 1). These and other materials are dumped in the ocean and create toxic waste making it an unsafe environment for estimated that eighty percent of the garbage comes from land-based sources and twenty percent comes from ships.

Although all sources of pollution are of concern, ship-generated pollution is a source for greater concern since a typical three thousand-passenger cruise ship produces over eight tons of solid waste weekly. A majority of this waste ends up in the garbage patch (Sherwin, n. d, p. 2). Plastic causes a lot of harm to creatures that live in the ocean. The ratio of plastic to sea life is six to one (Tamarind, 2012, p. 2). The little pieces of plastic are mistaken as plankton and other micro-organisms by fish. Thinking that it's food they consume the micro-plastics. Plastic bags also get mistaken for food to sea turtles. As they float in the ocean they begin to look like jellyfish (which are sea turtles favorite food). They then eat the plastic bags. Ingesting nonbiodegradable ocean pollution, like plastic bags, can cause a digestive blockage and internal lacerations. The result can be debilitation, followed by death (Sherwin, n. d, p. 4).

The Garbage Patch is not just affecting sea life; it is also affecting wild-life. Bottle caps, litter fluid containers and other small plastic objects, which have not yet been reduced in size, are collected by albatross and are mistaken for food. Still thinking that it's okay to eat these plastic objects the albatross feed their nesting babies these plastic pieces. Because of this diet of human trash, every year tens of thousands of albatross chicks die from starvation toxicity and choking. Inside the belly of a dead albatross you can see thousands of pieces of plastic.(Sherwin, n. d, p. 5). Not only do sea life and wildlife eat the plastic and other debris they also are getting tangled in fishnets and six-pack plastic rings (Tamarind, 2012, p. 2). Animals are not just affected by the Pacific Ocean Garbage Patch, humans are affected as well. Even though it is too soon to tell the impact that this has on the human body, fish in the ocean mistake micro-plastics as plankton. Therefore, each time we eat a fish that has come from the ocean we could be consuming plastic too.

The beaches of the Pacific Ocean have turned into beaches of debris and trash as water is washed up along shore, bits and pieces of plastic line the edge. These beaches that were once covered in luscious, pure sand are now slowly fading. New steps to recycle and reuse are being put in every day. In June 2008 China banned the use, production and distribution of ultra-thin plastic bags. (Kiener, 2012, p. 1) The state of California then followed suit and many others are joining in. There has been a rush of consumers to reuse and recycle. The United States recycles fifty percent of all paper products. That is about 42 million tons each year. In 2010, Americans generated about 250 million tons of trash and recycled and composted over 85 million tons of

this material, equivalent to a 34. 1 percent recycling rate. On average, we recycled and composted 1. 51 pounds of our individual waste generation of 4. 43 pounds per person per day. (United States Environmental Protection Agency, 2012, p. 2)

There have also been new widely enforced marine pollution laws enacted. The United States passed the Ocean Dumping Ban Act in 1988, forbidding cities from dumping untreated sewage into the sea. Even though these laws are being put in place people still continue to dump trash and hazardous waste into the Earth's water. Many don't see it as a big deal and they dump their trash in there anyway. Other big cargo ships don't get control over their ships and most of the trash ends up in the ocean. The majority of the trash found in the ocean comes from these ships. (Keiner, 2012, p. 4) The impact of the Environmental Discrimination such as the Pacific Ocean Garbage Patch affects wildlife, sea life, and humans. wildlife and sea life mistake the plastic for food and end up harming themselves. Humans are affected because they then eat the fish that have eaten plastic. Nations that border the Pacific Ocean have developed and continue to develop policies and laws that reduce the production of nonrenewable materials, promote reuse and recycling, and put strong penalties on those who dump waste into the Pacific Ocean.

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