

Wetlands are an integral part of our environment. Not only do they support diverse ecosystems, but they also benefit surrounding communities in many ways. However, these delicate ecosystems are currently threatened. The preservation of wetlands in the United States, and the world over, is crucial to the survival of the natural world as we know it.

The wetlands are home to a diverse range of plants, animals, fungi, and bacteria. This environment serves as shelter, and the wildlife there depends on this shelter for a feeding ground and a breeding ground. An increasing number of these species are endangered, such as the bald eagle, the red wolf, the whooping crane, the swamp rose, and many others. If no action is taken to protect our wetland habitats, many beautiful and important species will be lost.

Every day, wetlands perform many functions in their natural cycles that aid the plants, animals, and humans surrounding them. Although many think wetlands make the area more prone to flooding, wetlands actually function to control flooding by temporarily storing large quantities of water and releasing them through rivers and tributaries at a regulated pace.

Wetlands also reduce the rate of erosion by allowing pollutants and sediments to settle. This particulate matter settles because the structure of the wetlands prevents the water from moving quickly, like in a river. Pollutants do serious harm to the wildlife in wetlands, but the wetlands have preventative measures to fight back against them. Biofilms are microorganisms that find a home on the surface of many plants in the wetlands, and they process and suppress harmful pollutants that seep into the air and water.

Like all habitats, the wetlands require a specific combination of circumstances to sustain the life they contain; however, recent human activity has increasingly caused disruptions in the cycles of our wetland systems, creating an environment on the brink of collapse. When average people think of wetlands being eliminated, they typically imagine pollution and garbage damaging the wildlife, but oftentimes the greatest threat to our wetlands is urban expansion. Wetlands are cleared and paved over to make room for shopping malls and gas stations, and corporations turn a profit while innocent wildlife is evicted or killed.

Many times in the past, humans have been indirectly responsible for causing damage to wetlands by introducing organisms known as invasive species. The introduction of foreign animals has the potential to interrupt the ecosystem's food chain, to devastating effect. For example - the feral hog, a common wild mammal introduced into South Eastern and Western United States. They have had a recorded impact on many species of ground-nesting birds as a result of the boars intrusive habit of digging massive tracks through the dirt with their feet and tusks. The boars also have a major impact on local vegetation, constricting the local population of herbivores.

Invasive species aren't always big. Even an insect could have just as significant of an impact as a boar. The island applesnail was introduced in Texas and has since had a harshly negative impact on local agricultural production- from rice to duck salad - as well as many other wild plant populations. The applesnails can also act as vectors for disease, which can be a significant threat to local health when wildlife consumes wild plants or when humans eat contaminated agricultural products.

The most commonly regarded threat to the wetlands and other environments is human pollutants. From CO<sub>2</sub> in the air to littered plastic and styrofoam in our stormwater systems, the modern consumer increasingly contributes to the destruction of the natural world around us. Many people are found to feel gratified in occasionally recycling or owning and driving an “eco-friendly” car. In actuality, there is often more that the average person can do that is necessary to keep our environment safe and clean.

Although the aforementioned facts seem grim, there are a few steps each person may take to minimize their own effect on our wetlands and the community relying on them. Buying a reusable grocery bag is a very common measure to cut back on the number of plastic and paper bags that get made and thrown away. Biking, carpooling, or taking public transportation are all simple but helpful ways for an individual to help reduce the level of CO<sub>2</sub> and other gaseous toxins in our atmosphere. While these actions in large amounts have the potential to reduce human impact on our wetlands, the real burden lies with commercial farmers who use synthetic fertilizers and herbicides/insecticides to excess, and large corporations whose production processes often excrete pollutants directly into the surrounding environment. Many companies, in an effort to minimize cost and maximize profit, put the safety of the environment on the back burner. As a result, detailed and thorough laws are absolutely necessary to protect the wetlands. Voting in elections for candidates that will uphold ecological policies is vital to the passing of legislation that will protect our wetlands. Taking these actions are vital to protecting the future of our wetlands, which are absolutely necessary for life in all forms.

## Works Cited

<https://www2.monroecounty.gov/files/health/EnvQual/eh-WMWetlandsforCitizens.pdf>

[https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/home/?cid=nrcs143\\_023509](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/home/?cid=nrcs143_023509)

<https://www.maine.gov/dep/water/wetlands/threats.htm>

<https://www.epa.gov/wetlands/state-and-tribal-wetland-program-plans#element>

<https://www.epa.gov/wetlands/wetlands-restoration-definitions-and-distinctions>

<https://www.tn.gov/environment/program-areas/wr-water-resources/watershed-stewardship/voluntary-wetland-protection-resources/best-practices-in-voluntary-wetlands-protection.html>

[https://www.nwrc.usgs.gov/topics/invasive\\_species/index.htm](https://www.nwrc.usgs.gov/topics/invasive_species/index.htm)

[http://issg.org/database/species/impact\\_info.asp?si=1712&fr=1&sts=&lang=EN](http://issg.org/database/species/impact_info.asp?si=1712&fr=1&sts=&lang=EN)

<http://www.wetlands-initiative.org/invasive-species/>