

# What is a Wetland and Why Do I Want One?

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## What is a Wetland?

- A wetland is an ecosystem that is saturated with water either periodically or continuously.
- It is known as having the most diverse plant and animal species among all ecosystems.
- A wetland has also adopted more specific names such as, swamps, marshes or bogs, which cater to the different habitats that are present.
- You will generally find trees, mosses, plants and shrubs throughout most wetlands.
- Supports a large range of animal life from aquatic insects, mollusks and crustaceans to carnivorous animals such as fish, otters and dragonflies.<sup>1</sup>

## Ecological Benefits

- One of the most important services that a wetland offers is providing a stable habitat for a diverse group of plants and animals. One way a wetland is able to provide a suitable habitat is by sediment filtration. Harmful substances are introduced into bodies of water regularly by contributors such as agricultural and factory runoff. The plants within a wetland will absorb the toxic sediment into their roots and are able to decrease the toxicity. They then rerelease a less potent version back into the land or water.<sup>2</sup>
- Another way wetlands contribute towards a successful ecosystem is by providing a great deal of wildlife value. Wetlands contain an abundant food supply to many species, regardless of trophic level. It additionally offers a great stop for migrating birds that require food, water and shelter along their trip.<sup>3</sup>

## Wetland Abundance

- Around the 1600's, there was a predicted amount of around 220 million acres of native wetlands in North America. There has been a major decrease since then due to major land conversions to suit agricultural purposes. There are many other contributors such as waste, resident development and road construction that have aided in the disappearance of wetlands. To this day, there is currently less than half of the original

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<sup>1</sup> Defenders of Wildlife. "Basic Facts About Wetlands." *Fact Sheet Wetlands*. N.p., 24 Apr. 2012. Web. 25 July 2016. <<http://www.defenders.org/wetlands/basic-facts>>

<sup>2</sup> Michigan Environmental Education Curriculum Wetland Ecosystems. "How Do Wetlands Filter Harmful Substances?" N.p., n.d. Web. 25 July 2016. <<http://techalive.mtu.edu/meec/module12/Chemicalfunctionsofwetlands.htm>>.

<sup>3</sup> Environmental Protection Agency. "Why Are Wetlands Important?" *EPA*. Environmental Protection Agency, n.d. Web. 25 July 2016. <<https://www.epa.gov/wetlands/why-are-wetlands-important>>.

220 million acres present. There has been a shift in cultural beliefs and behaviors that now encourages more land protection and restoration. Having said that, a major difficulty in the restoration process has been introduced non-native, invasive plants.<sup>4</sup>

## Invasive Species

- Having high moisture availability means that wetlands tend to be a place where invasive plant species can thrive. Among the regions' worst invasive plants can be found in and around wetlands.
- Reed canary grass (*Phalaris arundinacea*) and phragmites (*Phragmites australis*) represent the greatest threat to our wetlands. Introduced from Europe and Asia, they are both extremely aggressive and easily outcompete native vegetation.
- Where they occur, there are likely to be few other species of plants that can maintain a presence in the ecosystem. This suppression of diversity leads to poor ecosystem health and limits the variety of wildlife that can thrive in the area.
- Control of these invasive grasses is both time consuming and expensive making it very hard to deal with. Some common techniques used include prescribed burning and mowing.<sup>5</sup>

Reed Canary Grass  
(*Phalaris arundinacea*)



Common Reed  
(*Phragmites australis*)



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<sup>4</sup> Water Shedss. "Major Causes of Wetland Loss and Degradation." *Wetlands Loss and Degradation*. N.p., 1976. Web. 25 July 2016. <<http://www.water.ncsu.edu/watershedss/info/wetlands/wetloss.html>>.

<sup>5</sup> Student-Teacher-Scientist Partnership. "Basic Information." *Phragmites: Common Weed*. N.p., n.d. Web. 25 July 2016. <<http://www.invasiveplants.net/phragmites/>>.