

The Wonders of Wetlands

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Many of us have likely heard about wetlands, but how much do you know about them? Where are they found? What do they do? Who or what lives there? Wetlands are a wonder of nature that are truly worth admiring for the services they provide for the environment daily. In this article, we will explore wetlands and give you a solid understand of the importance they serve to the environment and why they are worth protecting.

What is a wetland? Well, as you might imagine, wetlands are typically areas that are wet or at least saturated for a majority of the year. Other terms that you might have heard of with wetlands are swamp or marshes, which all mean the same thing. Contrary to what is implied by the term, it is possible for wetlands to be dry at certain points of the year, especially during the drier parts of the summer such as July or August. It is important to know that not all wetlands are going to be the same from one area to the next.

According to the National Oceanic and Atmospheric Administration (NOAA), wetlands can vary in how they look and what is found in them based on things like the soil, topography (slope of the land), climate, and vegetation just to name a few. Climate plays a big role in that there are going to be different sets of both plants and animals which are going to prefer differing climate conditions. Some like a hot and humid environment like is found in the Florida Everglades or the cool, less humid climates offered by Ohio.

How do you know you are looking at a wetland? This is a question that many experts have a hard time defining of what is classified as a wetland and what is not a wetland. One characteristic of wetlands are their unique hydric soils. Hydric soils appear dark, nearly black, saturated soil that usually are covered by water for a clear majority of the time. With these soils being continually covered by water, they are low in oxygen which means there are limited numbers of plants that like a saturated environment with limited amounts of oxygen.

Plants are also an identifying characteristic for wetlands. There is a certain group of plants called hydrophytic plants that like the wetland environment. Again, we have the root “hydro” meaning water just like hydric soils. Hydrophytic plants are those which can tolerate a flood environment with low amounts of oxygen. The Vermont Department of Environmental Conservation writes that these plants have adapted or made modifications to survive in these environments such as lily pads growing on the surface. Other wetland species include cattails, switchgrass, wild rice, wild cranberries, buttonbush, swamp milkweed, and even poison ivy. Cattails can grow upwards of ten feet tall which offers wetland animals plenty of cover to hide.

Animals that call wetlands home include frogs, ducks, beavers, various insects, mice, muskrats, mink, and river otter just to name a few. Ducks especially like wetlands as it provides the water and land type of living arrangement along with the serene environment they like.

Wetlands provide a wide variety of essential services and functions to the environment such as erosion control, flood control, food and fuel, shelter for animals, pollution filtering, and trapping sediment; just to name a few! According to the US Dept. of Agriculture Natural Resource Conservation Service (NRCS), wetlands aid in flooding control by acting as a temporary storage for water by allowing it to infiltrate the soil profile or simply evaporate into the air. By having this storage for water, flooding is decreased as water movement is essentially slowed down and slowly released over time.

Water quality is also improved thanks to wetlands. Wetlands help to filter out any excess nutrients, pesticides from runoff events along with bacteria as these substances encounter the plants, animals, and chemical processes found in the wetland area, according to NRCS. Without wetlands, excess nutrients and toxins would build up in the water which would lead to a decrease in water quality and more algal blooms.

Sediment retention is also a service provided by wetland environments. The plants in wetlands act as a strainer to filter out sediment carried away by water so that rivers, lakes, and reservoirs do not become filled with sediment which would require continuous dredging. Food and fuel are just another service provided by wetlands. The diversity of plants such as cattails and wild rice growing in wetlands provide an adequate food source for the wildlife that call these environments home. Peat is a fuel made from decayed plants that has historically been used as a heating source as well.

To sum it up, wetlands are a feature of nature that are truly treasured for the services they provide along with the diversity in plants and animals that call this areas home. They provide a place to enjoy nature, provide learning opportunities, and photo opportunities! Where can you enjoy a wetland near you? The Black Swamp Nature Center in Paulding of course!