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Great Lakes Science Center

The Importance of Wetlands

WHAT IS A WETLAND?

The word **Wetland** describes areas that are not open water and not dry land. The term encompasses marshes, swamps, bogs, wet meadows, and the transitional areas between dry land and water along the edges of streams, rivers, and lakes. Some areas can be wetlands without appearing wet year round. An area may seem dry, and surface water may only be visible for only a short time, making it hard to identify as a wetland.

Wetlands are among the most productive ecosystems in the world. They produce more biomass per year than any other ecosystem. This means that more growth takes place and more nutrients are captured and converted into useful forms in wetlands than anywhere else. This amazing growth and production gives them the ability to feed and shelter many plants and animals. They can be compared to tropical rain forests and coral reefs in the diversity of species they support.

Over half of the wetlands in the lower 48 States were lost between the late 1700s and the mid-1980s.

THE IMPORTANCE OF WETLANDS

The natural functions and values of wetlands are often overlooked and have in the past competed with their value as “reclaimed” land converted for agriculture and development. Wetlands provide many benefits, including food and habitat for fish and wildlife, flood defense, erosion control; water filtration, siltation control, and opportunity for amusement, education, and research.

We need to appreciate that wetlands are significant and priceless ecosystems. They are home to many rare and unusual species. Wetlands are vital to the survival of many plants and animals, including many threatened and endangered species. The U.S. Fish and Wildlife Service estimates that 43% of all threatened and endangered species rely directly or indirectly on wetlands for their survival. Many other species, such as mink, otters, muskrats, and amphibians rely on wetlands as their primary habitats. For many migratory animals, wetlands provide essential temporary habitats where food, water, and cover are abundant.

Wetlands help to improve water quality by slowing surface runoff and retaining nutrients, processing organic waste, and precipitating sediment before it reaches open water where it could cause problems. They slow and filter runoff and surface waters, thus safeguarding the quality of lakes, bays, and rivers. Wetlands also shield many of our sources of drinking water. They are the foundation of many commercially and recreationally important species of fish, shellfish, and wildlife. They control floodwaters and defend shorelines from erosion.

Wetlands can store rainwater and slowly release it. Trees, shrubs, cattails, and other wetland vegetation help slow moving surface water. This combined action of storage and slowing can decrease floods and reduce the speed of the water flow thus diminish the water's erosive potential. Wetlands can thus help control fluctuations in the rate and volume of surface water runoff and in so doing reduce flood damage and buffer shorelines against erosion.

Wetlands provide opportunities for popular activities such as bird watching, hiking, fishing, boating and hunting. An estimated 50 million people spend nearly $10 billion every year observing and photographing wetland-dependent flora and fauna. Wetlands provide a wealth of natural products, including fish, lumber, wild rice, and furs. Waterfowl hunters spend over $600 million per annum in the hunt for wetland-dependent birds.

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