Ohio Wetland Facts

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Small Wetlands

The Unique Values of Small and Farmed Wetlands

Misunderstood, Yet Valuable

The term "wetlands" usually conjures up images of beautiful ponds, mysterious bogs, and duck-filled marshes. Seldom do we think about small, seasonally-flooded forest pools, or small wetlands in farm fields.

Many people think that to really be valuable, a wetland must cover many acres and hold water all of the time. Yet, while large wetlands serve many valuable functions, smaller wetlands often provide very valuable and unique functions as well. Yet, small wetlands are frequently destroyed by development or drained for agricultural.

Oases for Waterbirds

Small wetlands are extremely important to migratory waterbirds, such as ducks, shorebirds, and wading birds. During their arduous migratory journeys, many waterbirds stop to rest and feed in wetlands.

Spring migration requires great energy as some birds must not only fly long distances, but also accumulate fat and nutrient reserves for the upcoming egg-laying season.

Insects and other invertebrates that thrive in temporary wetlands have adapted their life cycles to take advantage of the short period of inundation in these shallow pools. As a result, the pools produce an abundance of life

Classification of Small Wetlands

Temporary Wetlands are areas where surface water is present for only two to four weeks each year. Most are under two acres in size. They are very effective at storing spring rains and snow-melt, helping to reduce flooding. Compared to more permanent wetlands, they actually have a greater capacity to retain floodwater since they are less likely to be full before the flood event.

Seasonal Wetlands have surface water visible for extended periods of time, and in most years, for the majority of the growing season. Although they may appear dry in drought years, the water table remains very near the surface, creating a green oasis of vegetation that can provide an invaluable forage supply for haying and grazing. Seasonal wetlands are also integral to recharging groundwater supplies.

Semi-permanent Wetlands typically remain wet throughout the year. They play a major role in both water purification and flood control. The lush wetland vegetation usually supported by these areas filters sediment, nutrients and other chemicals that are washed into the water from farm fields and residential areas. These contaminants would otherwise pollute our groundwater, streams and lakes.

during the few weeks they are flooded, creating a virtual "invertebrate soup."

As these shallowest of wetlands are the first to thaw, this abundance occurs in early spring, just when migratory birds are passing through on their way northward.

Waterbirds that nest in Ohio often take advantage of small wetlands to re-build energy reserves. As these areas dry out, they rely on more permanent wetlands, surrounded by upland habitats suitable for nesting, rearing young, and hiding from predators.

Waterfowl depend on the isolation provided by small wetlands for successful breeding. Because breeding ducks are territorial, ten one-acre wetlands provide habitat for many more duck pairs than does one ten-acre wetland.

While consolidating small wetland areas into large units may seem efficient, wetlands function most effectively for waterbirds and many other kinds of wildlife when there are wetlands of various types, sizes, and depths located relatively close together.

Vernal Pools

Vernal pools are small, shallow depressions usually found in or near forested areas. The isolated pools fill with water from spring rains and snowmelt, but usually dry out in the summer sun. Vernal pools play a very critical role in the lives of many amphibians. The temporary pools provide the moisture and protection from predators needed by many species of breeding frogs and salamanders. Larger wetlands and ponds often contain fish which will feed on amphibian eggs and larvae.

Several species of mole salamanders found in Ohio, including the commonly-known Spotted Salamander, are dependent on the perennial presence of vernal pools. Spring rains and rising temperatures lure the hibernating amphibians from their wintering tunnels in mid-March to early May. They then travel to the breeding grounds to begin their courtship and mating rituals.

Few humans regularly witness these activities because salamander migration and breeding occur at night. Evidence of these nocturnal behaviors can be found in the jelly-coated egg masses and/or larvae visible in the pools. Once hatched, the young are left to mature alone and survive the constant threats of predators and extreme summer weather trends.

Vernal pools are frequently destroyed by development. With many species of Ohio amphibians in decline, this continued habitat loss could have very serious consequences. Adding to their demise, salamanders will attempt to return to the same location each year to mate, even if these areas have since been destroyed.

Agricultural Wetlands

Most wetland plants are not found in intensively farmed wetlands because of tillage and the use of herbicides. If farmed wetlands are allowed to return to their natural state however, wetland vegetation and wildlife soon return.

Despite the lack of wetland vegetation, farmed wetlands can provide some very important functions. Since they are generally found in areas that have been extensively altered by man, they can be particularly important for purifying water, preventing flooding, and providing habitat for wildlife.

Agricultural wetlands often capture sediment, pesticides, herbicides and fertilizers that runoff of surrounding farm fields.

Flooding of agricultural wetlands tends to occur during the non-growing season, resulting in only limited impacts to crop production. In dry years, farmed wetlands can be more productive because of better soil moisture. In wet years, the farmer may have to delay planting.

In very wet years, wetlands are of tremendous value to waterfowl populations that typically decline during dry years. A wide variety of birds can be found feeding in flooded fields in spring.

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