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Wild Ones

NATIVE PLANTS, NATURAL LANDSCAPES

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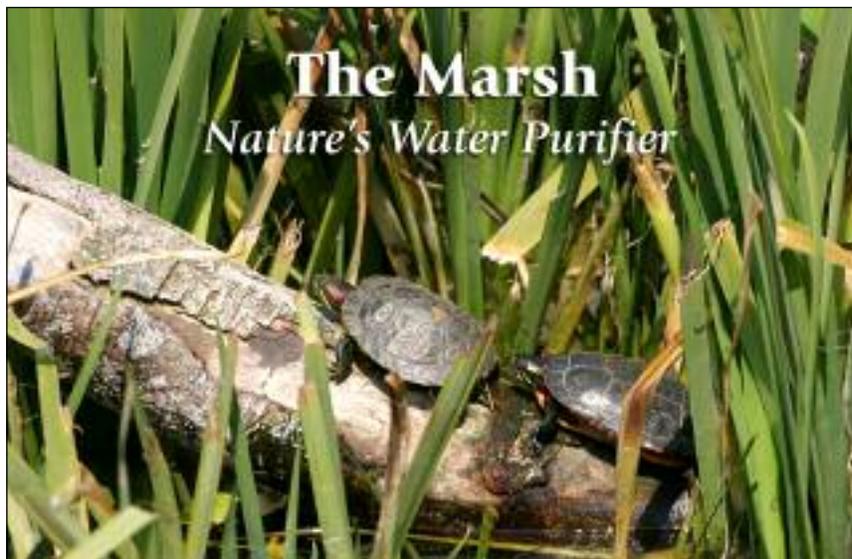
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Celebrating 25 years
restoring native plants
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Turtles are cold-blooded (poikilothermic), and enjoy lying in the sun to raise their core body temperatures. Marshes and other wetlands are a favored habitat.

By Tom Schneider

Often overlooked, marshes are an important part of the ecosphere – and the proposed Wild Ones HQ property has a great marsh remnant that we can help preserve.

Wild Ones' opportunity to create the West Shore Preserves Environmental Center on the shore of Little Lake Butte des Morts, could not only provide a unique home for Wild Ones, but also protect one of nature's great assets. The marshes surrounding the center are reported to be some of the last remnants of what was once a large marsh complex within the Lower Fox River corridor. Marshes play a special role in the larger ecosystem, providing services locally, continentally, and globally.

One of the most famous and formerly world's largest marshland system, the Mesopotamian Marshes, is a mere glimmer of its former self in modern-day Iraq. This marsh complex, which some biblical scholars speculate might have been the "Garden of Eden," cleansed pollutants from the waters of the Tigris and Euphrates rivers as they entered the Persian Gulf.

The Wetlands

Marshes are what most people envision when they hear the word wetland. Marshes are wetlands that are frequently or continuously covered with water. They are frequently found along the outer edges of open water, extending into the water to the point where sunlight can no longer reach the bottom and support plant growth – less than three feet, depending on the turbidity and solutes in the water. These wetlands exist in



Dragonflies and damselflies are part of the intricate food chain of a marsh, feeding on living prey.

both fresh- and salt-water systems. They are made up of emergent or soft-stemmed vegetation, which grows out of the water – dominant plants in marshes include cattails, reeds, grasses and bulrushes. Other familiar plants such as
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arrowheads, smartweeds, and sedges contribute to the plant community. Purple loosestrife (*Lythrum salicaria*) and *Phragmites australis*, the common reed, are the most bothersome invasive species that specialize in establishing in marsh habitats and present a serious threat to native systems. Some would add canary reed grass (*Phalaris arundinacea*).

Marshes and Swamps

Marshes differ from swamps, another major continuously inundated wetland, by virtue of the primary vegetation types. Swamps are dominated by woody vegetation, and often have several vegetative layers including canopy, sub-canopy, and herbaceous. Swamps are generally associated with riverine systems. Northerneastern swamps are forested by trees such as swamp white oak (*Quercus alba*), and eastern white cedar (*Thuja occidentalis*), while southern swamps can be dominated by cypress or even mangrove. The ivory-billed woodpecker was recently rediscovered in the bottomland hardwood swamps of Arkansas after having been thought to be extinct for more than 60 years.

Natural Purification Systems

Wetlands in general, and marshes specifically, are often referred to as "nature's water purifiers." This designation is based upon the filtering and nutrient-removal functions that marshes perform so well for adjacent surface waters and even ground water. The vegetation and associated microorganisms work to remove sediment, nitrogen, and phosphorus from water flowing through the marsh. Pollutants such as nitrogen and phosphorus are either taken up by plants for growth or metabolized by bacteria into less soluble compounds which precipitate. Marshes filter the water of an ecosystem, removing impurities and passing cleaner water downstream.

Flood Control

Flood protection is another service of marshes and other types of wetlands. A marsh can act as a large sponge, storing flows of rain water and slowly releasing it over time, removing much of the energy and pollution from the initial surge. As more and more impervious surfaces such as pavements, roofs, and even lawns are implemented, storm water runoff is becoming a bigger problem, and flooding is becoming more prevalent in some areas because of the speed at which water runs off these surfaces and into

streams. Not only can marshes reduce storm-water flooding, but they also reduce the impacts of drought, as they help to regulate the flow of water into streams and lakes by retaining water for later, more continuous release.

Similarly, marshes aid in erosion control by reducing the rate of water flow from the inland, and dissipating the energy of waves and storm surges from the open-water bodies. Marshes are very effective in attenuating natural events and helping to mitigate their impacts. We've all heard the stories of the historic losses of the marshes that once surrounded New Orleans, and the impact these losses had on allowing a large storm surge to hit the city. On a much smaller scale, marshes around the country protect stream and lake banks from erosion caused by flooding or storm surges.

Home for Plants and Animals

These wetlands not only provide environmental services in terms of water quality and erosion control, but they also provide an important environment in the life cycle of many organisms. They are breeding grounds, nurseries, resting spots, feeding areas, and homes to a variety of organisms. In salt-water systems, marshes are often the nurseries for most of the seafood we all enjoy. Fish, from the mud minnow to the northern pike, make marshes their home. Many frogs and turtles call marshes home for at least part of their life cycle. Mammals such as muskrat and mink inhabit these wetlands. Flying predators, ranging from the twelve-spotted dragonfly to the bald eagle find productive hunting in marshes.

Marshes are most apparent during the spring season of the year. The *konk-ker-ee* song of the red-winged blackbird that nests among the cattails is as unmistakable as the bird itself. And waterfowl are highly dependent on marshes. Black ducks, green-winged teal, mallards, and other ducks rely on marshes for breeding and rearing their young. Ducks, geese, egrets, herons, cranes, and others use marshes as resting and feeding points along their amazing journeys

from one end of the continent to the other.

The opportunity presented to Wild Ones – to participate in the preservation and restoration of a patch of ancient marshland, is invaluable. If our grant request is met with success we will become part of something much larger and more important than we have been before. These are exciting times! ❁

Tom Schneider is a biologist working for the Ohio EPA, and is a member of the Columbus (OH) Chapter.



With the acquisition of the 12 acres at Butte des Morts, Wild Ones will be able to participate in the preservation of an important patch of ancient marsh.

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