



SPOEHR'S MARSH WORKHORSE WETLAND FUNCTION
FISHERIES HABITAT

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OUTAGAMIE COUNTY



SPOEHR'S MARSH

Property Owner: WDNR

Wetland Types Present: marsh, sedge meadow, shrub carr, floodplain forest

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WETLANDS SUPPORT FISHERIES

Wetlands are often cited as the most productive ecosystems on Earth because of their great capacity to capture and use the sun's energy as well as to recycle energy and nutrients. A strong food web base, made up of plants, algae and microbes, means that wetlands can support an abundance of wildlife, including fish. Wisconsin's wetlands provide important nursery habitat for many species of fish, including game species like northern pike and walleye. Walleye populations in the Lake Winnebago system provide a specific example of the importance of wetlands in supporting our state's fisheries.

SPOEHR'S MARSH & WALLEYE

Lake Winnebago is one of the most popular fishing areas in the state with more than 75 fish species, including game species such as walleye, yellow perch, lake sturgeon and white bass. The lake's walleye fishery is one of the most sought after in the state. Yet most people don't realize that Lake Winnebago walleye are dependent upon more than ten-thousand acres of wetlands, including Spoehr's Marsh, along the Wolf and Fox Rivers upstream. Unlike most strains of walleye that spawn on riffle and gravel bar habitat in lakes and rivers, Lake Winnebago walleyes spawn in floodplain marshes. Spoehr's Marsh is the best studied of the many walleye spawning marshes in this system. Located 85 miles upstream of Lake Winnebago, the 350 wetland acres at this site produce hundreds of millions of walleye fry each year.

Each year in April, spring rainfall and snowmelt cause the meandering Wolf River to rise over its banks. The river spreads into its wide floodplain, filling oxbows and



Walleye — Eric Engbretson

marshes with floodwaters and transforming them into highly productive walleye nurseries (photos above show the same marsh flooded and unflooded). Lake Winnebago walleyes migrate nearly 100 miles upstream during spring flooding and lay their eggs on mats of winter-killed grasses, sedges and other vegetation in floodplain marshes. On average, each female walleye in this system lays more than 113,000 eggs each spring. Mats of marsh vegetation provide protection to the eggs by holding them above silty soils and associated fungi for the 10-21 days until they hatch (varies with water temperature). Water continues to flow slowly in these floodplain marshes, which is critical to making them productive walleye nurseries. Flow attracts adult walleye into the marshes, keeps eggs clean and provides them with oxygen during development, and helps fry travel back into the river once they have hatched. Flooding typically lasts about four weeks each spring, after which water recedes and marsh vegetation begins to grow again.

COMMUNITY PARTNERSHIPS

In recent years, WDNR has worked with partners to reverse historical alterations to the Wolf River system by restoring floodplain connections and thousands of acres of wetlands. Community organizations like Shadows of the Wolf, Walleyes for Tomorrow, Otter Street Fishing Club, and Sturgeon for Tomorrow have been instrumental in bringing back both wetlands and walleyes.

ACCESS

Spoehr's Marsh is on the east side of the Wolf River a few miles north of Shiocton on highway 187. Pull off on the shoulder where the marsh, which is on the west side of highway 187, makes a gentle curve and comes right up to the road.

OTHER EXAMPLES OF THE FISHERIES HABITAT VALUE OF WETLANDS

Other sites with wetlands that have exceptional fishery habitat value include the vast Upper Mississippi River National Wildlife & Fish Refuge, the west shores of Green Bay in Oconto County, Peshtigo Brook State Wildlife Area in Oconto County, Cedar Creek Wetlands in Chippewa County, and many more.

Sources:

Reproduction and Early Life History of the Walleye in the Lake Winnebago Region. Gordon R. Priege, Susan Hickey, Editor. WDNR Technical Bulletin # 45: 1970
Kendall Kamke, WDNR Fisheries Biologist
Wisconsin Department of Natural Resources: Wetland Functional Values