U.S. Fish & Wildlife Service

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News Release





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2015 RESEARCH SHOWS DOWNRIVER'S FEW REMAINING FORESTS ARE SOME OF THE RAREST IN THE STATE

GROSSE ILE, MICHIGAN – The Detroit River International Wildlife Refuge initiated a survey this past year of a few of the largest remaining forests in the Downriver Area, including the renowned Humbug Marsh, which was nearly developed into hundreds of homes, a marina, and a golf course in the late-1990s and is now a part of the International Wildlife Refuge. Botanists, Brad Slaughter and Mike Penskar with the Michigan Natural Features Inventory, worked with Refuge staff to provide an updated and accurate description of what is most unique and critical for protecting in these small forest stands that total less than 500 acres (1 acre = approximately 1 football field). They also investigated forests at Oakwoods Metropark and on Grosse Ile.

To understand what features of the forests are most important to conservation, the researchers referenced what the forests were like before the land was settled and converted to agriculture about two-hundred years. They "dusted off" old land records from when Joseph Fletcher of the Federal General Land Office walked what is today Humbug Marsh in 1817, noting details about the native forest, mainly for the purpose of documenting timber values. A clear sequence was described of the ownership changes that led to degradation of the native forests due to farming, grazing, and cutting over the years. They focused on describing in detail how the original native, healthy forest was a product of the soil, natural drainage, and inferred Native American land-use. They then described what features of the forest persisted after two-hundred years of intensive land use by French and then other European settlers.

Refuge biologist Greg Norwood, notes that:

"The species that make up places like Humbug Marsh are perhaps analogous to collections of books in a library – there are those shelves made up of mostly old, rare books that have somehow been left unchanged, collecting dust together for decades. There are also shelves that are more or less represented by mass-produced, commonly-found books that were added recently, which are analogous to the invasive species and generalists. Finally, there are, of course, some shelves that are virtually devoid of books altogether, that are analogous to very few species."

The Refuge ultimately wants to track those collections of species that have been together the longest and serve as a "reservoir" of biodiversity. Recently found in Humbug Marsh has been a rare grass-like plant called the Hairy-Fruited Sedge (*Carex trichocarpa*) and an orchid species called Oval Ladies'-Tresses (*Spiranthes ovalis*) never before found in Wayne County

which has some of the oldest botanical records in Michigan. One sedge species (*Carex squarrosa*) identified on Grosse Ile had not been found since 1932 and the Shumard oak, having never been recorded on the island, was determined to actually be a dominant tree on the islands' remaining forest. In fact, Grosse Ile is one of the strongholds for the Shumard oak in southeast Michigan, a Michigan State-listed special concern species.

The healthiest flatwoods, which are those on Grosse Ile, Oakwoods Metropark, and Belle Isle in Detroit, have a more even mix of old, medium, and new species. Humbug Marsh, which was determined to have had the most disturbance over the years, has a disproportionately higher abundance of new, common species to older, rare ones that have been together for a long time. "This difference is like that of a collection at an old, ivy-league university library versus one at, say, a new Barnes and Noble, which is disproportionally represented by mass-produced, common books found nation-wide", Norwood says. The report can be found on the Refuge homepage at: www.fws.gov/refuge/detroit_river/.



White oak in the forest of Humbug Mars,h indicating open conditions over 150 years ago caused by grazing and farming. Photo credit: U.S. Fish and Wildlife Service.

The Detroit River International Wildlife Refuge covers 48 miles of shoreline along the lower Detroit River and western basin of Lake Erie. It stretches from southwest Detroit to the Ohio-Michigan border. The Refuge focuses on conserving, protecting and restoring habitat for 300 species of birds, including 30 species of waterfowl, 23 species of raptors, 31 species of shorebirds, and for 117 species of fish. The Refuge currently owns or cooperatively manages 5,834 acres of unique habitats that include islands, coastal wetlands, marshes, wet prairies, shoals and riverfront lands. To date, 3,797 acres of Essex Region Conservation Authority lands and 981 acres of City of Windsor lands have been added to a Canadian registry of lands, and 7,897 acres of Michigan Department of Natural Resources lands have been added to the U.S. registry of lands for conservation purposes. When totaled between Canada and U.S., 18,509 acres of land in southwest Ontario and southeast Michigan are now being collaboratively managed and protected for the benefit of conservation and outdoor recreation in the spirit and intent of the 2001 Conservation Vision and the DRIWR.

To help make sure that a growing urban population values natural resources and that a priority is placed on developing the next generation of conservationists in urban areas because that is now where 80% of all U.S. citizens live, the U.S. Fish and Wildlife Service has created a new Urban Wildlife Refuge Program. Under this program, the Service has designated 14 priority urban refuges, 14 urban wildlife refuge partnerships, and many other urban bird treaty cities and other urban refuges to help make nature part of everyday urban life and cultivate a connected conservation constituency who cares about wildlife. The DRIWR is proud to be designated one of the 14 priority urban refuges and the only international wildlife refuge in North America.

For additional information, contact Biologist Greg Norwood (734-692-7611; greg_norwood@fws.gov).

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