

Dyke Marsh Wildlife Preserve – Urban Green Space

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Chesapeake Conservancy/National Park Service (NPS)

September 28, 2019



Figure 1: Paddling in Dyke Marsh Wildlife Preserve

“In Livable Cities is Preservation of the Wild.” This is the motto of the [Urban Greenspaces Institute](#), a nonprofit organization dedicated to ensuring that parks, trails, natural areas, and healthy watersheds are integrated into our urban fabric and are accessible to everyone. After paddling at [Dyke Marsh Wildlife Preserve](#) and then spending the afternoon just 2.5 miles north in Alexandria, Virginia, I experienced firsthand how the natural beauty of Dyke Marsh serves as an [urban green space](#) for the densely populated Washington, D.C. and Northern Virginia areas.

According to the [National Park Service](#) (NPS), Dyke Marsh consists of approximately 485 acres of tidal marsh, floodplain, and swamp forest, and is one of the largest remaining freshwater tidal wetlands in the Washington, D.C. Metropolitan area. The [U.S. Geological Survey](#) estimates that the southern marsh has existed for approximately 2,200 years, and the northern marsh has existed for 500 years. The marsh was indeed "diked" at one time, as the name suggests. In the early 1800s, earthen walls were built around the perimeter of the marsh in order to create more "fast land" or land not flooded by high tides. These areas were used to graze livestock or grow crops. Then, in 1959, Dyke Marsh was added to the National Park system. But that wasn't enough to protect it. Extensive dredging destabilized the marsh, and it wasn't until 1974 that Congress

authorized the U.S. Army Corps of Engineers to assist the NPS in restoring the “historic and ecological values of Dyke Marsh.” For more information, see [Friends of Dyke Marsh](#).

On Labor Day weekend 2019, my friends and I launched from a marina just north of Dyke Marsh and then paddled south on the Potomac River to do a little exploring. It was cloudy and a little windy, but we were able to shelter ourselves between some islands and the shore for at least part of our trip. As we rounded a small peninsula, we saw some men fishing from a pier at the end of the 0.75-mile wheelchair-accessible [Haul Road Trail](#) (aka [Dyke Marsh Trail](#)). One of them had just caught an [American eel](#), formerly one of the most abundant fish in Atlantic coastal streams. Sadly, their population has been reduced to less than 1% of their historic levels.

We paddled north in the marsh on the main waterway, called Hog Island Gut, which has several tributaries branching off it, making it a great place to explore. Getting out at high tide helped us get further upstream and avoid running aground in the shallow areas. But on the day we were out, the tide was even higher than normal thanks to tropical storm Dorian.



Figure 2: Exploring a tributary off Hog Island Gut

We saw lots of wild rice growing in patches along the shore. According to the [National Park Service](#), “more than 360 species of plants have been recorded in Dyke Marsh. The dominant species of the marsh itself is the narrow-leafed cattail. Other species associated with the tidal marsh include: arrowhead (a.k.a. duck potato), a plant whose starchy tubers are favored by waterfowl; arrow arum, a distinctive plant with large triangular leaf blades; pickerelweed; sweetflag; spatter-pond lily; and northern wild rice, the grains of which are enjoyed by red-winged blackbirds, waterfowl, and people.”

On the west side of Hog Island Gut, we saw a couple of [wild persimmon](#) trees bearing a plethora of fruit. The word persimmon has Algonquian roots, while the genus name, *Diospyros*, literally translates to “Fruit of the Gods.” But they weren’t yet ripe so we heeded Captain John Smith’s warning: “if it be not ripe it will drawe a man’s mouth awrie with much torment.”



Figure 3: Wild persimmon fruit in Dyke Marsh

But while so many of the plants in the marsh appear healthy, [Friends of Dyke Marsh](#) reports that there are also many dead trees, presumably killed by the invasive [emerald ash borer beetle](#). The U.S. Department of Agriculture reports this invasive species is responsible for the destruction of tens of millions of ash trees in 30 states.



Figure 4: Kayaking by dead trees in the Dyke Marsh Wildlife Preserve

Even though the weather was not ideal, we saw lots of other people out enjoying the day on kayaks and standup paddleboards, possibly rented at the same marina from where we launched. We also noticed folks bicycling, running, and walking on the 18-mile [Mount Vernon Trail](#) which runs from George Washington's Mount Vernon Estate to Theodore Roosevelt Island. Paddling in this urban green space, it was easy to forget I was so close to a city until I heard the rumble from a loud vehicle on the nearby George Washington Memorial Parkway, sometimes just 300 feet away but hidden behind trees.

Back on the Potomac River, we saw the construction of an approximately 1,800-foot breakwater and stone sill to prevent erosion and protect the marsh. This \$24.9 million joint project between the [U.S. Army Corps of Engineers, Baltimore District](#) and the NPS, George Washington Memorial Parkway, is expected to conclude in 2020. Without this effort, the NPS and the U.S. Geological Survey estimate that the marsh ecosystem would be entirely lost by 2035.

These efforts are being put forth to preserve Dyke Marsh, largely because of its ecological importance. Classified as a “globally rare” habitat (according to the [Chesapeake Bay Program](#)), the marsh is home to 300 known species of plants, 6,000 arthropods, 38 fish, 34 mammals, 16 reptiles, 14 amphibians, over 270 species of birds and at least 20,000 species of insects. But the marsh is also of significant value as an urban green space where locals can enjoy a variety of outdoor activities including kayaking, bicycling, and specialized walks led by NPS rangers, bird watchers, and botanists. Thousands of species are positively affected by the preservation of Dyke Marsh, but perhaps it is humans who gain the most.