Why Is Dyke Marsh Significant?

The Dyke Marsh Wildlife Preserve is a 480-acre complex with several habitats — a freshwater tidal wetland, swamp forest, floodplain forest and open water. It is on the Virginia side of the Potomac River in Fairfax County and has been seriously degraded by dredging, dumping, filling and the introduction of non-native species. Dredging reduced what was once 200 acres of emergent marsh to 60 acres today. Congress added Dyke Marsh to the National Park System in 1959 "so that fish and wildlife development and their preservation as wetland wildlife habitat shall be paramount." (Public Law 86-41)

What is it? What's there?

Dyke Marsh is -

- a freshwater tidal marsh and freshwater tidal marshes are rare.
- one of the largest remaining freshwater tidal wetlands in the Washington metropolitan area.
- one of the largest, most significant temperate, climax, riverine, narrow-leafed cattail marshes in the national park system.
- habitat for 300 known species of plants, 6,000 arthropods, 38 fish, 16 reptiles, 14 amphibians
 - and over 270 species of birds, and possibly 20,000 species of insects. Officials estimate that 90 percent of the marsh's microhymenoptera are not yet described.
- home to the narrow-leafed cattail (Typha angustifolia), a plant more common to brackish, salty water.
- one of the best studied wetlands in the U.S. and an outdoor laboratory for several area universities and federal agencies.
- at least 2,200 years old, in the southern part.

Three plants found in Dyke Marsh are considered "critically imperiled" or "imperiled" in Virginia:1

- Davis's sedge (Carex davisii)
- River bulrush (Bolboschoenus fluviatilis, also known as Schoenoplectus fluviatilis)
- Rough avens (Geum laciniatum)

 $^{^{1}}$ Plant and bird rankings developed by Virginia Department of Conservation and Recreation, Division of Natural Heritage

Two bird species found in Dyke Marsh are among Virginia's rarest known native animals:

- The American bittern (<u>Botaurus lentiginosus</u>). In Virginia, this bird is "extremely rare and critically imperiled" for breeding occurrences and "very rare and imperiled" for nonbreeding occurrences.
- The coastal species of the swamp sparrow (*Melospiza georgiana georgiana*). In Virginia, this bird is "extremely rare and critically imperiled" for breeding occurrences.
- In Virginia, the least bittern (<u>Ixobrychus exilis</u>) is list as a "species of greatest conservation need."

Until 2015, it was the only known nesting area of the marsh wren (*Cistothorus palustris*) in the upper Potomac River tidal zone. This bird has not been observed breeding here since 2015.

Two species of carabid beetles previously unknown in Virginia were found in 2012.

A species of rove beetle and a species of tumbling flower beetle new to science were discovered here in 2019 and 2020.

Dyke Marsh has survived years of abuse and impacts from surrounding dense development, a rare tidal wetland in a suburban/urban area that provides an outdoor classroom for students of



all ages, a laboratory for scientific study and many opportunities for recreation and nature study.

It's disappearing.

Dyke Marsh is disappearing. Around 1.5 to two acres of wetlands are vanishing every year, a rate so severe that U.S. Geological Survey scientists say Dyke Marsh will be gone by 2035, without action to prevent erosion. Dredging reduced what was once 200 acres of

emergent marsh to 83 acres and destabilized the whole system, spurring the loss of another 23 acres. Today fewer than 60 acres remain. From 2019 to 2021, the National Park Service will invest over \$28 million in *stabilizing* existing marshlands. The U.S. Congress, in the history of the authorizing legislation (Public Law 86-41) and in later bills, called for *restoring* Dyke Marsh.

It's gotten attention.

Dyke Marsh has been featured on PBS television's *This American Land*, National Public Radio/WAMU's "Metro Connection," in the *Washington Post, Beacon* and *Zebra* newspapers and in *Virginia Wildlife* magazine. A feature film about Dyke Marsh, *On the Edge*, premiered at the Kennedy Center for the Performing Arts.

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