



BRIEF GUIDE TO THE DUSTY GOLDENROD PRESERVE:

A Small Suburban Wetland Complex

DUSTY GOLDENROD PRESERVE ESTABLISHED

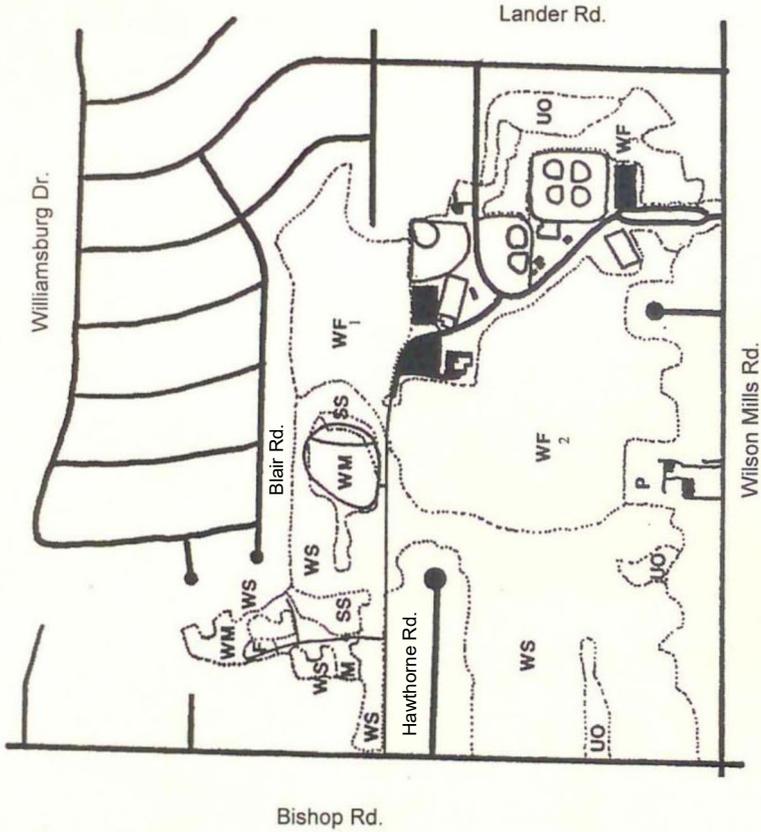
In September, 1998 Dr. George Wilder, Professor of Biology at Cleveland State University, discovered a rare plant called dusty goldenrod (*Solidago puberula*) in a wet meadow on a 37-acre property owned by the Mayfield City School District. This was in fact the only known location in Ohio for this species. Later Suneeti Jog, a PhD candidate working with Dr. Wilder, selected the entire wetland complex surrounding the dusty goldenrod as the site for her PhD work. She published her dissertation in May of 2003. What followed was a broad-based, community-wide effort to protect this plant and its wetland habitat.

In 2008, a 12.5-acre portion (see map on page 12) of the wetland complex was protected with a **conservation easement**. A conservation easement is created when a conservation organization purchases specified development rights to a property. The property owner agrees to prohibit activities which may degrade or destroy the environmental quality of the site such as oil drilling, logging, mining or housing developments.

The easement plan was developed through the collaboration of the **Friends of Euclid Creek**, the Mayfield City School District, the City of Mayfield, the City of Highland Heights, and the Cuyahoga Soil and Water Conservation District. The purchase was made possible by a \$275,000 grant from the Ohio Department of Natural Resources, the Natural Resources Assistance Council, Clean Ohio Fund and a wetland mitigation contribution of \$70,000 required by United States Corp of Engineers from land developers working in Highland Heights. The conservation easement is held by the Cuyahoga Soil and Water Conservation District.

Map of study area redrawn from 1998 aerial photos. Bold lines indicate existing roads. Dotted lines indicate subtype boundaries:

- P = pet cemetery
- SS = shrub swamp
- UO = urban open land
- WF = wet forest
- WM = wet meadow
- WS = wooded swamp



Jog, Suneeti, "Vascular Plant Flora of Highland Heights Community Park: A Floristic Survey and Trend Analysis of a Suburban Wetland", PhD Dissertation, May 2003, Cleveland State University.

WHAT IS A WETLAND?

Wetlands are areas saturated with water, either permanently or seasonally, such that they take on the characteristics of a distinct ecosystem. Wetlands are characterized by the range of plant material adapted to this unique abundantly moist soil. Some common types of wetlands are marshes, swamps, bogs, fens, floodplains, seeps and swales.

WHY ARE WETLANDS IMPORTANT?

Wetlands play a critical role in our environment.

1. Preventing and/or reducing flooding. They slow down the movement of surface waters allowing the water to penetrate deeper also helping to restore groundwaters.
2. Filtering and purifying pollution runoff by holding, using or decomposing contaminants.
3. Providing a carbon sink, a natural reservoir that accumulates and stores some carbon-containing chemical compounds for an indefinite period. Capturing carbon is a very important process in mitigating and/or reducing the impact of climate change.
4. Stabilizing shorelines and riverbanks. Wetland plants slow down erosion by holding the soil in place.
5. Wetlands are the most biologically diverse habitats providing shelter, nesting areas and food for a wide variety of creatures many of them endangered. The loss of wetlands and other types of habitats is one of the main causes of animal population reductions and extinctions around the world.

WHY IS THIS WETLAND SO IMPORTANT?

In highly urbanized areas like the Euclid Creek watershed wetlands have become extremely rare. In our watershed, over 95% of wetlands have been destroyed through development mostly for farming and housing. Their loss degrades the natural environment and the quality of our water.

The undeveloped portion of the wetland complex north and west of the Highland Heights Community Park is almost totally surrounded by a heavily suburbanized area. This area contains the remnants of a large wetland complex with five north-flowing streams near the headwaters of the east branch of Euclid Creek. These waters eventually flow into Lake

Erie impacting our drinking water quality. Additionally this site has at least three rare plants on the State rare plant list.

There are four distinct types of wetlands in this undeveloped area: (1) **shrub swamp**, (2) **wet forest**, (3) **wet meadow** and (4) **wooded swamp**. A map showing the approximate boundaries of each area can be found on page 2. Plants listed below are in the wetland.

A **shrub swamp** is a minimally disturbed, stable environment characterized by a relatively permanent ground water source, often nutrient-rich. The shrub species includes willows (*Salix spp.*), swamp rose (*Rosa palustris*), meadow-sweet (*Spiraea alba*), dogwoods (*Cornus amomun*, *C. sericea*), red currants (*Ribes rubrum*), and viburnums (*Viburnum dentatum*, *V. opulus*). Many of these plants are critical food sources for birds and animals.



A **wet meadow** is a mostly treeless wet area dominated by plants in the grass (Poaceae), sedge (Cyperaceae), and rush (Juncaceae) families. They occur along stream floodplains, in shallow upland depressions, and along pond margins. Soils are mineral or shallow peat, often with an upper layer of dense root mass. Standing water is typically shallow, the water table often retreating to subsurface levels by summer.

The herbaceous cover includes a diverse mix of monocot species: bulrushes (*Scirpus spp.*, *Schoenoplectus spp.*), rushes (*Juncus spp.*), sedges (*Carex vulpinoidea*, *C. lurida*, *C. scoparia*, *C. cristatella*), spike rushes (*Eleocharis spp.*), and numerous grasses (*Agrostis gigantea*, *Glyceria spp.*, *Leersia oryzoides*, *Phalaris arundinacea*, *Phragmites australis*, *Poa spp.*).



Characteristic broadleaf associates include bonset (*Eupatorium perfoliatum*), swamp milkweed (*Asclepias incarnata*), goldenrods (*Solidago spp.*), St. Johnswort (*Hypericum spp.*), and eastern Joe-Pye-weed (*Eutrochium fistulosum*). Many of these plants prevent erosion and provide habitat and food for butterflies and other pollinators.

Wooded swamps are characterized by the presence of soils which are abundantly wet (hydric). The primary difference between a wet forest and a wooded swamp is the wooded swamp stays wetter for longer periods of time. The wet forest will dry frequently at least on the surface.

Tree species requiring a moderate amount of water (mesic) such as hickory



(*Carya sp.*), basswood (*Tilia americana*), red and white oak (*Quercus rubra*, *Q. alba*) tuliptree (*Liriodendron tulipifera*), and black cherry (*Prunus serotina*) are present. The shrub and herbaceous species are a diverse mix of wetland and mesic-upland species. (See



Wooded Swamp

shrub swamp and wet meadow lists.) Amphibi-

ans and reptiles use these wet areas for spawning and nurseries.

titles use these wet areas for

PLANTS IN THE PRESERVE

Each of the four wetland types has a different assortment of vegetation. There are 421 different plant species in the wetland complex. About 60% are native and 40% are non-native. Almost 30% of these invasive species are on a special watch list of the worst of the worst. These include garlic mustard (*Alliaria petoliata*), common perwinkle (*Vinca minor*), and buckthorn (*Rhamnus sp.*).

PROTECTION, EXPANSION AND FUTURE PLANS

The biggest threat to any wetland is habitat destruction through unrestricted development. Wetlands which have very little slope are the easiest to convert to human uses such as farming and housing. Invasive plants are also capable of degrading the preserve by pushing out native plants. The presence of deer has already affected the quality of the wetland complex. Non-native insects such as the emerald ash borer have been identified at the preserve and their presence will change the composition of trees present.

In 2016, the Friends of Euclid Creek (FOEC) received a grant of \$2,500 from Dominion Resources, Inc. to develop a management plan for the long term protection and stewardship of the Dusty Goldenrod Preserve.

In 2014 and 2019, West Creek Conservancy (WCC) assisted the Euclid Creek Watershed Program and purchased additional parts of the wetland complex. The Highland Heights Wetland Preserve along Bishop Road protects 12 acres of the wooded swamp habitat. In 2019 the Mayfield City School District sold the entire 37 acre property studied by Suneeti Jog to WCC. Now WCC owns the entire Dusty Goldenrod Preserve Parcel and the Highland Heights Wetland Parcels (Total 39 acres).

There are other wetland segments located on Highland Heights City property that are not protected. The Friends of Euclid Creek is working with partners to expand protection to all of what remains of this rare urban wetland complex.



RARE PLANTS

The wet meadow is the habitat for most of the rare plants. It contains the only known location in Ohio of **dusty goldenrod** (*Solidago puberula* - photos on page 9). There were about 90 shoots of dusty goldenrod growing at this site in 2002. About 135 shoots were inventoried in 2016. The best time to see the dusty goldenrod in bloom is early October.

Pinweed (*Hypericum gentianoides* - photos on page 10) and **clustered-beak rush** (*Rhynchospora capitellata* - photos on page 11) are two rare plants growing in abundance within the wet meadow site but absent from similar habitats in Cuyahoga County. The best time to see these plants in flower is September.

Another unique feature of this site is the occurrence of four different kinds **club mosses** (*Lycopodium sp.*).

FOR FURTHER INFORMATION ON...

- Wetlands in general contact your local library or go to <https://www.epa.gov/wetlands>
- Friends of Euclid Creek contact
Web: <http://www.euclidcreekwatershed.org>
Facebook: Friends of Euclid Creek
Email: FriendsofEuclidCreek@gmail.com
- Dusty Goldenrod Preserve contact
Cuyahoga Soil and Water Conservation District
(216) 524-6580
West Creek Conservancy
(216)749-3720

CONTRIBUTIONS FOR CONSERVATION

If you would like to help conserve additional areas of this wetland complex with a financial contribution please send your check to The Friends of Euclid Creek, P.O. Box 21384, South Euclid, OH 44121. Thank you.

Friends of Euclid Creek is a volunteer community-based, non-profit 501(c)(3) watershed stewardship organization formed in 2003 to support the Euclid Creek Watershed Action Plan. The Friends of Euclid Creek (FOEC) work to protect and restore the creek by helping people who live in the watershed become stewards of the land and water.



Dusty Goldenrod
(*Solidago puberula*)
Aster family

This is the only known location in Ohio which supports a sizeable population of this species.



Pineweed

(Hypericum gentianoides)

St. John's wort family

The wet meadow within the Dusty Goldenrod Preserve is the only known place in Cuyahoga County to support this species.



Clusted-beak rush
(*Rhynchospora capitellata*)

Sedge family

This species is highly abundant in the wet meadow. This is the only known place in Cuyahoga County where it grows.

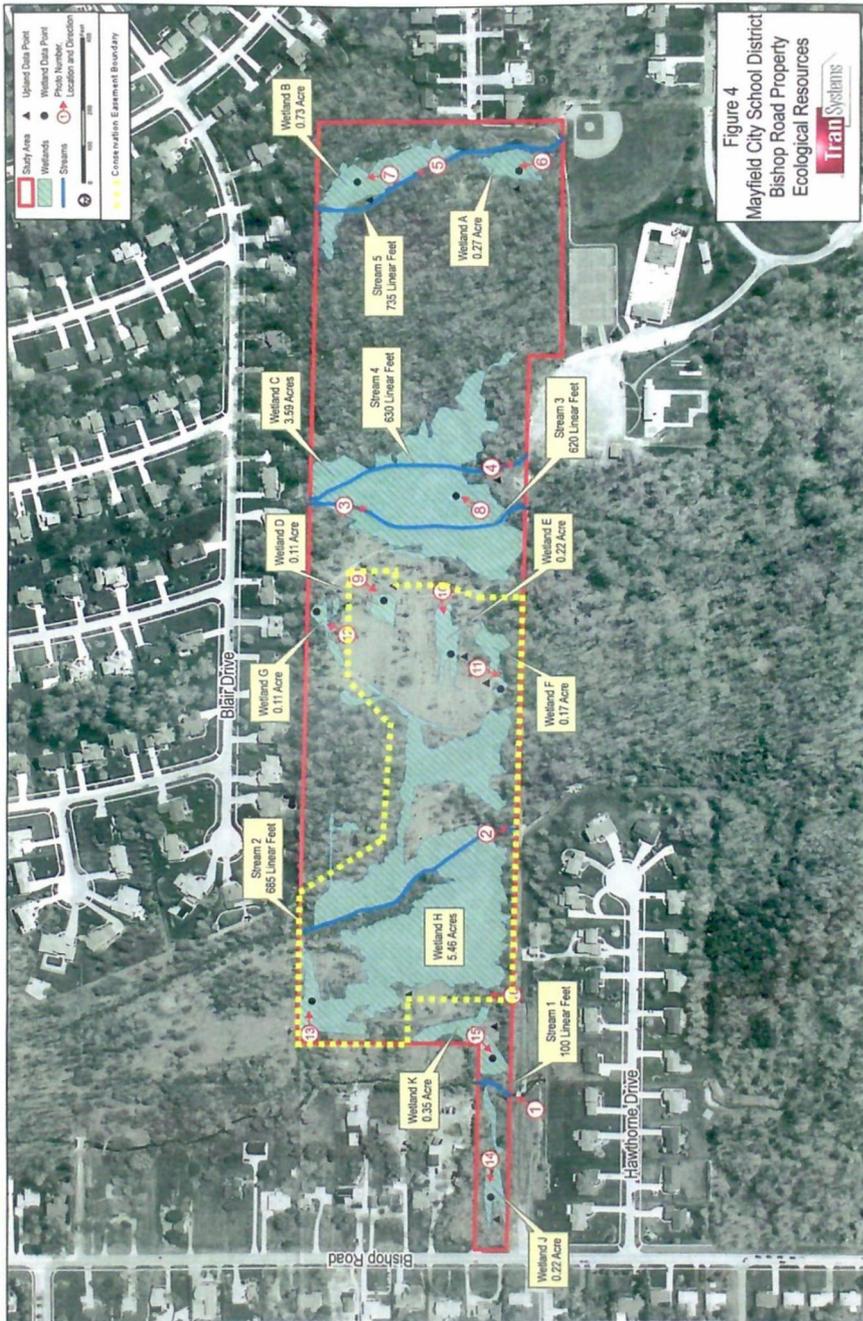


Figure 4
 Mayfield City School District
 Bishop Road Property
 Ecological Resources
 TranSystems

Revised: 2020Jul9-Ver.19-Brian Gilbert, Kelly Butauski, E. Hiser