

Vegetation

Historically, the Euclid Creek Watershed had a variety of natural communities. The eastern highlands were composed primarily of a beech-maple climax forest. Where swampy and poorly drained soils existed, smaller areas of the characteristic upland swamp forest occurred. These areas were dominated by the American elm, black ash, and red maple. In areas of dappled sunlight, black willow, heart-leaved willow, and pussy willow could be found.

The eastern section of the Lake Plain has a unique organization. A relatively flat surface caused many locations to be wet, swampy, marshy, and poorly drained. Pin oak once dominated large areas of this wet, flat land. At slightly higher elevations where the water table was lower, sugar maple, beech, tulip, shagbark hickory, and white ash appeared.

Areas along the shoreline of Lake Erie were dominated by American elm, black ash, and silver maple. On sandy ridges, which were once old beaches, white oak, red oak, black oak, sassafras, and chestnut were common. Streams that have cut through the lake cliff to Lake Erie have formed ravines or gullies. In such places, American elm, cottonwood, basswood, white ash, beech, and sugar maple occur. As better drainage is established, the beech-maple climax forest reasserted itself.

A comprehensive list of plant communities historically found in the Euclid Creek Watershed is included in Appendix A. This list was compiled by James K. Bissell, Curator of Botany, Cleveland Museum of Natural History.

The natural vegetation of the watershed has been extensively altered due to urbanization. The areas of steep topography along the East Branch and its tributaries have the most extensive amount of vegetation. Areas such as the Metroparks Euclid Creek Reservation and the Mayfield Country Club have dense natural vegetation. In addition, several stretches of streambank vegetation, especially on

privately owned large lots, have been preserved throughout the watershed. These areas help the stream maintain its natural functions. The vegetation helps to stabilize the banks and slow floodwaters; thus allowing moisture to soak into the ground. Certain types of vegetation also help to filter water and remove pollutants.

Highland Heights Community Park

One area of significance in the watershed described in a study by the Cleveland Museum of Natural History is a property adjacent to Highland Heights Community Park. The study found that this land contains a rare 3.93 acre Palustrine Meadow. This land has considerable natural value, not only because it is a wetland, but also because it contains an unusual diversity of over 400 species of vascular plants. Many of these plants are rare and/or endangered in Ohio and/or Cuyahoga County.

The meadow is the sole locality in Ohio for *Solidago puberula* (Dusty goldenrod), supporting a population of about 50 to 100 clumps of this species. Also it is the sole locality in Cuyahoga County for *Hypericum gentianoides* (Orange-grass) and *Rhynchospora capitellata* (Beak-rush). The meadow also contains four species of club mosses and a rare hybrid of clubmosses unusual in the County: *Lycopodium clavatum*, *Lycopodium digitatum*, *Lycopodium hickeyi*, *Lycopodium tristachyum*, and *Lycopodium Xhabereri*. The meadow also contains *Juncus marginatus* (Rush) and the orchid species *Spiranthes cernua* (Nodding Ladies' tresses), two species uncommon in Cuyahoga County. In addition, the wooded swamp exhibits *Fraxinus nigra* (Black Ash), a wetland species that is rapidly disappearing from the County.

Invasive Species⁴

The ODNR Division of Natural Areas and Preserves has compiled a list of more than 60 plants that are currently impacting natural areas, parks and forests throughout the state. Some of the typical invasive non-native plants in this area include: bush honey-

⁴The Native Forests of Cuyahoga County, Ohio – A.B. Williams, 1949, James K. Bissell, Curator of Botany, Cleveland Museum of Natural History

suckles, buckthorn, garlic mustard, purple looses-trife, common reed grass, reed canary grass, autumn and Russian olive, multiflora rose, Japanese honey-suckle, narrow-leaved cattail, Canada thistle, and tree-of-heaven (**see brochure in Appendix B for further descriptions**). The presence of these invasives and non-natives are no exception in Euclid Creek. The watershed has had a history of land disturbance which has created a breeding ground for the establishment of invasive and non-native species in its natural and built landscapes.

The areas most disturbed with invasives exist along the channelized portion of the creek, along the main branch, and where land alteration has occurred around the headwater tributaries. In addition, Wildwood State Park is also overgrown with invasive species.

Wildlife

There are numerous types of wildlife found throughout the watershed. Typical backyard wildlife include Eastern Chipmunk, Cottontail Rabbit, Raccoon, Gray Squirrel, and White-tailed Deer. Each animal has its own unique habitat characteristics.

Near the shoreline, the American Toad and Box Turtle are abundant. In addition, types of birds include: Mourning Dove, Blue Jay, Chickadee, Robin, Red-wing Blackbird, Cardinal, Goldfinch, and Sparrow.

The wildlife listed above is only a handful of the many species present throughout the watershed. There is an abundance of backyard wildlife present, not only within the watershed, but also throughout North America. Due to urban sprawl, much of the vital habitat for these animals is disappearing.

Bird Survey

In June 2003, the Friends of Euclid Creek together with the Kirtland Bird Club conducted a Nesting Bird Survey near the Euclid Creek Watershed. The survey found 150 species of birds covering many different landscapes including forest edges, urban areas, wetlands, woodlands, and successional areas.

The wetland areas in/near the watershed were the most abundant as far as types and quantity of species.

Fish

The upper portions of Euclid Creek are the habitat for a variety of pollution-tolerant fish such as creek chubs, blacknose dace, and central stoneroller. The lower creek has a variety of species, including steelhead, that enter from Lake Erie. The lower stretch of Euclid Creek, from the East 185th Street Dam to the Lake, is used for recreational fishing by local anglers.

Habitat

Wetlands

It is estimated that the state of Ohio has lost approximately 90% of its original wetlands. The Euclid Creek Watershed is not an exception. The limited amount of wetlands remaining has resulted in a critical need to protect what remains. Only recently have we begun to understand the functions these natural resources provide.

Wetlands manage stormwater volume and energy. They absorb excess stormwater during flooding and supply streams with water during dry weather. Their thick vegetation helps to slow down the flow of water, recharging ground water, dissipating energy, and allowing for pollutant removal. They also provide important habitat for wildlife. There are a few areas within the watershed where wetlands have been identified; however, identification and quality assessments have not been made on many lands within the watershed.

Nearshore

Nearshore habitat provides a critical interface between the lake and river systems. Typically, the nearshore area consists of the open Lake Erie waters to a depth of 10 meters, the shoreline, and the lake influenced area of the stream. The stream dynamics of Euclid Creek, in the area from the mouth upstream to just north of Lakeshore Boulevard, are greatly affected by the lake waves and activities.

Plants and other landscape characteristics within the nearshore zone can have a significant effect on the health and viability of fish populations within the lake and river. These nearshore areas comprise the presence of one third of the species found within Lake Erie waters. Effective nearshore habitat associated with the tributaries can help support valuable spawning locations upstream. These resources not only provide essential biological functions but also provide recreational uses that contribute to economic prosperity.

According to the ODNR Coastal Geology Division, the nearshore extent in the Euclid Creek shoreline area is 1.2 km (approximately 3,000 feet) outward from the shoreline to the 10 meter depth. Re-creating a healthy interface with the lake and nearshore habitat will increase healthy and diverse fish populations moving upstream in Euclid Creek.