

Restoring Biodiversity in The Chagrin River Valley

The Chagrin River valley is a part of the Lake Erie watershed, which has been severely affected by human activities such as urbanization, industrialization, and agriculture. These activities have created an imbalance of “biodiversity” and resulted in pollution, habitat fragmentation, overexploitation, growth of invasive species, and the loss of natural habitats. In the last few decades, several organizations have collaborated to restore the biodiversity of the region. To accomplish this, one of the primary objectives of the restoration efforts is to create a functional ecosystem that can support the native flora and fauna of the region.

Identification of our native flora and fauna indicates that there are 131 endangered species of wildlife, and 271 endangered species of plants in Ohio. There are 38 endangered birds, more than 136 species of pollinators endangered or on watch lists, and over 644 rare plants are either presumed extinct, endangered, or on watch lists in Ohio. These species are all dependent on the native growth of a balanced ecosystem.

And yet, more than 500 plant species that are not native to Ohio have been introduced from other states or countries. They are introduced through garden centers, landscapers, and well-meaning home owners who plant invasive bushes, hedges and ground plants while not knowing that as these plants go to seed they reproduce outside of their yards and into the fragile ecosystem of woodlands and wetlands.

Establishing a balance includes removing the invasive species, restoring wetlands, monitoring bird and wildlife populations, documenting tree coverage, and rebuilding riparian areas along the river. Non-native plant species in proliferation in our valley, such as Japanese knotweed, purple loosestrife, common reed and tree of heaven must be managed through a combination of mechanical, chemical, and biological control measures.

The Chagrin River Valley has also lost a significant portion of its wetlands due to human activities such as drainage and filling. Wetlands are essential for maintaining the water quality and hydrology of the region. They also provide essential habitat for native aquatic species including fish, amphibians, and insects. According to the Ohio Department of Natural Resources, more than 49 species of fish and 90 bird species live in the Chagrin River watershed. These wetlands provide essential habitat for the most endangered wildlife in Ohio. Out of all the species that are endangered, mollusks (24) and fishes (22) are the most individual endangered species in Ohio.

The restoration of the Chagrin River valley involves engaging with the local community to raise awareness about the importance of ecological conservation. The Chagrin River Watershed Partners, has organized several educational programs and events to inform the public about the biodiversity of the region and the need to protect it. Additionally, they have worked with local landowners to encourage the adoption of environmentally sustainable practices such as riparian buffer strips and reduced chemical use.