



Summit Park Environmental Restoration Impact Report 2023



Introduction

An invasive plant species is a plant that tends to spread and cause damage to the local environment. Non-native invasive species are especially troublesome as they have no local natural competitors. Thus, without natural competitors, the non-native invasive species can quickly use up space and resources, inhibiting the growth of native species in the area. Along with interfering with park aesthetics and public enjoyment, they aggressively spread, causing changes in soil chemistry, increased soil erosion, and loss of wildlife habitat.

The City of Blue Ash, with Ohio River Foundation (ORF), is working to control the non-native invasive species populations that have established themselves on the Summit Park property. This annual report addresses environmental restoration work that ORF completed in Summit Park in 2023.

The goals for this project in 2023 were to create healthy and sustainable natural areas to encourage native wildlife and engage community volunteers in the restoration process.

Accomplishments

In 2023, Ohio River Foundation, with the help of Summit Park staff and community volunteers, protected approximately 21.5 acres of land from the harmful effects of non-native invasive species (e.g., soil erosion and degradation, loss of wildlife habitat, overcrowding, and decreased public enjoyment).

- ORF protected 21.5 acres from harmful invasives (see chart for full species list).
- Thousands of non-native invasive plants and trees were removed by ORF staff, Blue Ash staff, and volunteers.
- ORF held two corporate volunteer events attended by 30 volunteers who logged 78 service hours.

Note: The Summit Park Invasive Species Strategic Management Plan produced by Ohio River Foundation specifically for Summit Park is a list of all removal strategies used.

What was removed in 2023?
Yellow Sweetclover (<i>Melilotus officinalis</i>)
White Sweetclover (<i>Melilotus alba</i>)
Amur Honeysuckle (<i>Lonicera maackii</i>)
Common Teasel (<i>Dipsacus fullonum</i> L.)
Canada Thistle (<i>Cirsium arvense</i>)
Porcelain-berry (<i>Ampelopsis brevipedunculata</i>)
Poison Hemlock (<i>Conium maculatum</i>)
Japanese Honeysuckle (<i>Lonicera japonica</i>)
Wintercreeper (<i>Euonymus fortunei</i>)
Narrow-leaved Cattail (<i>Typha angustifolia</i>)
Multiflora Rose (<i>Rosa multiflora</i>)
Callery "Bradford" Pear (<i>Pyrus calleryana</i>)
Privet (<i>Ligustrum</i> spp.)
Russian Olive (<i>Elaeagnus angustifolia</i>)
Autumn Olive (<i>Elaeagnus umbellata</i>)

Pond hillside (near playscape)



Before Sweetclover removal



After Sweetclover removal

↑ In 2023, thousands of non-native invasive **Yellow and White Sweetclover** plants were removed. Because of this work, many new native grasses and flowering plants will be able to fill in, provide wildlife habitat, and help keep pollution and sedimentation out of Summit Park's ponds and creeks. Repopulation with natives also reduces the severity of future Sweetclover invasions. Other native plant species that have rapidly spread are Bearded Beggarticks, Butterfly Weed, Compass Plant, Frost Aster, Climbing Rose, Orange Jewelweed, Wild Blackberry, and Black Raspberry.



← Invasive **White and Yellow Sweetclover** are detrimental to native prairies due to their competitive dominance, invasive behavior, and ability to alter ecosystem dynamics. These aggressive invaders outcompete native plants for vital resources, reducing plant diversity and disrupting natural processes. Their prolific seed production and dispersal make control efforts challenging, and their nitrogen-fixing abilities can lead to soil nutrient imbalances. As a result, sweetclover alters the availability of resources and threatens the habitat and food sources essential for native wildlife. Removing white and yellow sweetclover from native prairies is crucial to maintain biodiversity, preserving ecosystem integrity, and protecting the overall health of these ecosystems.



← The ORF restoration team removed several hundred flowering **Poison Hemlock** plants in 2023. Due to its poisonous nature, this biennial plant has received much attention these past few years. Often confused with look-alike Queen Anne's Lace, Poison Hemlock has white flowers and a smooth stem with purple blotches and streaks. Poison Hemlock is only poisonous if ingested or inhaled (if mowed), and continuous management is required to keep it from spreading. As pictured, these plants can grow very large, some up to 8 feet tall. If not removed, the plants will drop seed and spread quickly. To remove, ORF recommends using a sharp shovel to pierce the thick taproot at least 2 inches below soil level. The plant should be carefully bagged and thrown away in the trash. The ideal removal window is after flowers have formed before seeds are loose.



↑ Summit Park employees helped clear invasive **Yellow and White Sweetclover** in 2023. If not removed, invasive Sweetclover will quickly outcompete native plants for water, sunlight, space, and nutrients; reduced flora biodiversity comes with reduced fauna biodiversity.

↑ Successful Succession! **Butterfly Weed** and **Wild Indigo** have been established well throughout the Summit Park prairie. Both species play crucial roles in prairie ecosystems by providing food and habitat for wildlife, supporting pollinators like butterflies, and contributing to these natural habitats' overall health and resilience. Their use in prairie restoration and conservation efforts helps restore native ecosystems and promote biodiversity.

Forested area, behind the dog park



Before invasive species removal



After invasive species removal

With the help of volunteers, Summit Park's forested areas are also seeing major improvements. With honeysuckle, climbing Wintercreeper, and Porcelain Berry removed, sunlight can now reach the forest floor. The native Silky Dogwood, Sassafras, Orange Jewelweed, Wild Blackberry, Black Raspberry (and others) found in these areas can now stake a claim and spread through this newly available habitat.

Wild Blackberry bushes can be found in several locations in Summit Park's wooded areas, mainly along the forest's edges. Because of the 2023 non-native invasive honeysuckle removal work, Summit Park's Wild Blackberry bushes will likely spread and inhabit some areas where honeysuckle once prevailed. Blackberries are well-known for their thorns but provide a suitable habitat for small wildlife. The berries are also an excellent food source for many birds and animals, Wild Blackberries are also healthier (than honeysuckle berries) for wildlife to consume. Honeysuckle berries are lower in protein and energy content but higher in carbohydrates than native shrubs. In the fall, birds especially need a high-protein diet to create energy stores for the winter. Eating honeysuckle berries provides the opposite and is detrimental to both resident and migrating bird species. When honeysuckle is removed and replaced by plants such as Wild Blackberry bushes, healthier habitats for wildlife exist and decrease the likelihood of invasive species returning year after year.



Wild Blackberry Bush

Once all invasive removal work was completed within the native prairie, ORF worked in Summit's wooded areas and tackled some of the woody invasives, particularly Callery Pear and honeysuckle. Many of which were quite large.



← Honeysuckle bushes have a rapid growth rate and often outcompete native plant species, reducing plant diversity and disrupting vital ecosystem processes. Consequently, this negatively impacts wildlife, as the honeysuckle bushes fail to provide the necessary quality of habitat and food sources that native plants offer. To align with Summit's habitat restoration objectives, eliminating honeysuckle is critical. It not only helps restore the park's native vegetation and ecological functions but also curtails the spread of this invasive species.

Summit Park's forested areas seem to have *pockets* of invasive species rather than a monoculture of honeysuckle or Callery Pear. This is a good thing to recognize, because addressing invasive species at the earliest opportunity is essential to prevent them from becoming unmanageable. It protects native biodiversity, conserves resources, and ensures ecosystems' long-term health and functionality. Therefore, proactive and timely management strategies are key in the fight against invasive species.



← In Summit's forested areas, numerous dogwood trees have been identified among the invasive species. These dogwoods (pictured right) hold significant value within Ohio's native forests due to their positive impacts. They enhance biodiversity by providing vital habitat and food sources for wildlife, including birds, insects, and mammals that rely on dogwood berries, nectar, and pollen. The appeal of these species becomes apparent through their deliberate selection and cultivation in environmental restoration initiatives. They are actively sought, purchased, and purposefully introduced into restoration projects. The discovery of well-established dogwoods in Summit Park is an encouraging indicator of the park's ecological potential.

Volunteer Participation



↑ Madtree employees join the effort and remove hundreds of honeysuckle bushes behind the dog park.



Volunteers are crucial to reestablishing Summit Park as a natural space. During an ORF volunteer day, attendees learn firsthand how detrimental non-native invasive species, like Amur Honeysuckle, are to an ecosystem. They learn how to identify different plant species, work as a team, and earn volunteer hours and certificates while helping us restore natural habitats and increase biodiversity. Summit Park's volunteer base is unique because volunteers will return repeatedly to help, often bringing new volunteers. During an ORF volunteer day, there are jobs for all activity levels. We aim to get everyone involved in a comfortable way.

In 2023, ORF held two corporate volunteer events, totaling 30 volunteers and 78 hours of service. In September, volunteers from MadTree Brewing joined ORF staff to remove invasive Amur Honeysuckle. Additionally, in October, volunteers from Protiviti joined ORF staff to remove Amur Honeysuckle. Both work days took place in the forested area behind the dog park. In total, more than 1,000 Amur Honeysuckle plants were removed.

Looking forward, ORF is excited to continue this partnership with Summit Park and offer corporate groups habitat restoration volunteer opportunities that are educational and inspirational and also benefit the park and community.

← Protiviti returns for another year of honeysuckle removal! This time, with an even larger crew.

Conclusion

In 2023, Ohio River Foundation, volunteers, and Summit Park employees combed through 21.5 acres of park property and, with the help of volunteers, removed thousands of harmful invasive plants from park property. Over the past few years, all prairie and bioswale acreage has shown tremendous new growth. Native trees, grasses, and flowers have begun to fill in gaps where non-native invasive plants were removed. Some example species include Silky Dogwood, Sassafras, Orange Jewelweed, Wild Blackberry, Black Raspberry, Bearded Beggarticks, Butterfly Weed, Compass Plant, Frost Aster, Climbing Rose, Orange Jewelweed, and many more.

All 21.5 acres were monitored and treated throughout 2023 for invasive plant regrowth. Yellow Sweetclover, White Sweetclover, Amur Honeysuckle, Canada Thistle, Common Teasel, Poison Hemlock, and Callery Pear were the most prevalent species. Because of continued invasive removal work, harmful plant populations have dramatically decreased.

Volunteer participation for 2023 was significant. ORF held two corporate volunteer events attended by 30 volunteers who logged 78 hours of service. Over the past few years, we have built relationships with corporate partners in the surrounding area. We've had many past volunteers return who are passionate about protecting and restoring Summit Park. This is an excellent opportunity for corporate groups to volunteer and give back to their communities. We have already seen interest for 2024 and are excited to expand our volunteer base and make a positive environmental impact at Summit Park.

It's known that parks exist to serve their local community. However, with the conservation and restoration successes taking place at this site, Summit Park is quickly becoming a vital ecological hub that will benefit not only Blue Ash's local community but the ecology of the entire Tri-State area.

Map

PRAIRIE, BIOSWALE, FORESTED AREA



Note: All work areas are highlighted in blue.