

Huyck Preserve's "Most Unwanted" Invasive Species from Summer 2019

This summer, Huyck Preserve staff created a plan to monitor and manage invasive species, starting with species that are emerging in the region and/or on the Preserve. Here are some of the species we've tackled so far:

Yellow Archangel (*Lamiastrum galeobdolon*):

A widespread wildflower in Europe, this species was introduced to the United States as an ornamental and is emerging (beginning to be found and spreading) in the Capital-Mohawk Region. It is not yet banned from garden stores and nurseries in the area, but don't be fooled - this plant is highly invasive once it escapes your garden. On the Huyck Preserve, this species emerged along Ten-Mile Creek south of Rensselaerville. Removal involves digging up the plant completely by hand, including the root system, which is filamentous and easily fragmented. The plant resprouts rapidly from root fragments as well as leaves left on the ground. In fact, Huyck Preserve Invasive Species Steward Lindsay Charlop may have been the first to document this leaf sprouting phenomenon. Weekly monitoring and removal of resprouted growth over a long period is necessary to fully eliminate a population.

Notice the vine-like growth, variegated (green and white) leaves, and asymmetrical, yellow flower.



Foliage and flower of yellow archangel



Invasive crew member, Zach Schiralli, removing yellow archangel on Preserve land, summer 2019

Bishop's Goutweed aka Snow on the Mountain (*Aegopodium podagraria*):

Native to Eurasia, this plant is considered to be emerging in the Capital-Mohawk Region. Although it is fairly widespread around the Hamlet of Rensselaerville, it was found for the first time this year on the Preserve itself, near the boat launch at Lake Myosotis. Removal requires digging the plant completely by hand, including the root system, as well as follow-up removal of resprouted growth.

Notice the mitten-shaped, toothed leaves, and the flat, white cluster of flowers. The flowers resemble those of Queen Anne's Lace, as they are both in the carrot family.



Leaves of bishop's goutweed



Bishop's goutweed in flower

February Daphne (*Daphne mezereum*):

Native to most of Northern Europe and Asia, this plant contains a compound that is highly toxic if consumed and an irritant if touched. Historically, February daphne was used to make rouge products, but it fell out of fashion when doctors realized that the reddening of the cheeks it induced was caused by blood vessel damage. February daphne emerged on Huyck Preserve property in the Hamlet of Rensselaerville. Eradication involves removal of the entire plant, including the root system, and subsequent removal of resprouted growth.

Note the entire (smooth-margined, non-toothed) leaves. This plant develops clusters of showy, pink flowers and red fruits just below the top layer of leaves.



February daphne in fruit

Burning Bush aka Winged Euonymus (*Euonymus alatus*):

Native to central and northern China, Japan, and Korea, this plant was imported as an ornamental plant for its beautiful red coloration in autumn. Burning bush was planted on the Huyck Preserve in front of Ordway house, and has escaped from there and other locations in the Hamlet to the beach, the forest near the Visitors' Center, and to other limited Preserve locations. Eradication involves removing the entire plant, including the root system, or cutting large individuals down to the stump and removing regrowth over time to starve the root system. Notice the woody "wings" on the stems, the opposite leaves, and the red coloration in autumn.



Winged stem of burning bush



Typical growth form of burning bush



Autumn coloration and ripe fruit of burning bush

Water Chestnut (*Trapa natans*):

Originally cultivated for its edible nuts across East Asia and India, this plant was brought to the United States around 1874 as a planting in the Harvard Botanic Garden. Staff gardener Louis Guerineau liked the plant so much that he intentionally distributed it to the Fresh Pond and other Cambridge waterways. Today, this plant is widely invasive from Virginia to Vermont, and is known to overrun lakes. The plant is found on the Preserve in Lincoln Pond. Removal requires gently pulling the entire plant, which should release from the lake bottom fairly readily. Repeated removal before seed set is typically necessary for 10-12 years to deplete the seed bank.

Notice the triangular toothed leaves, the round leaf floret, and the distinctly shaped nuts.

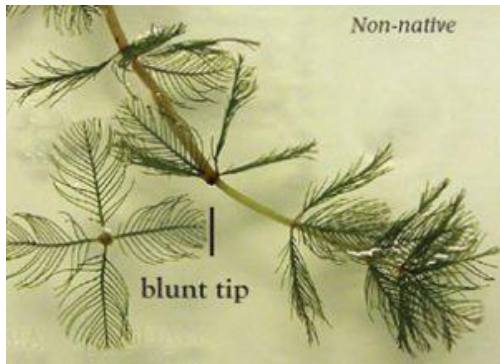


Water chestnut on Lincoln Pond

Eurasian watermilfoil (*Myriophyllum spicatum*)

Native to Europe, Asia, and North Africa, this submerged aquatic plant was introduced to North America in the 1940s and is now considered a noxious weed across the continent. Fragments of this plant are often transported from lake to lake on boats, which is likely how the species was introduced to Lake Myosotis where it was first discovered this summer. Removal involves digging out the entire plant, including the roots, during the summer before the plant falls apart and breaks into sprouting fragments in the autumn.

Notice the whorls of four leaves, with over 11 leaflets per leaf.



Lake George Association



Eurasian watermilfoil on Lake Myosotis, summer 2019

Curly-Leaf Pondweed (*Potamogeton crispus*)

Native to Eurasia, this plant has no difficulty surviving and reproducing under the ice of North American lakes. It is best observed in the early spring, just as temperatures rise above freezing. Removal of this species involves digging out the entire plant by hand, but success is often limited when using only mechanical methods.

Notice the crimped, opposite leaves.



Curly-leaf pondweed collected from Lake Myosotis, summer 2019

False Spiraea (*Sorbaria sorbifolia*):

Native to East Asia, this shrub is just beginning to be understood as invasive in the Capital-Mohawk region. There are only two known populations at the Huyck Preserve - one at the Wheeler Watson Cemetery and one on the Loop Three Trail. Removal of this species involves digging out the entire plant by hand, and subsequently removing resprouted growth.

Notice the double-toothed, alternate leaves, which resemble those of sumacs and some fern species, as well as the showy white flowers.



Foliage of false spirea

European Privet (*Ligustrum vulgare*):

Introduced from Eurasia for use as ornamental hedges, this species is frequently dispersed by birds that eat and then evacuate the fruit. Privet was originally planted on the Huyck Preserve near Davis Cottage and the boat launch. Repeated cutting can prevent or limit flowering and fruiting. Removal involves digging out the entire plant, including the root system, and removing subsequent regrowth.

Notice the opposite, evergreen leaves and white flower clusters.
European privet in flower



Autumn Olive (*Elaeagnus umbellata*):

Originally from temperate and tropical Asia, this species was introduced to the U.S. in the early 1800s for ornamental and erosion control purposes. Although they are planted for wildlife management purposes in the Southwest, in the Northeast, they are an invasive species. This species grows as a large shrub or small tree. Removal involves digging out the entire plant, including the root system.

Notice the shiny, silvery coloration on the underside of the willow-like leaves.



Foliage of autumn olive

Common Barberry (*Berberis vulgaris*):

Native to Asia, this invasive shrub was brought to the Americas by early settlers in the 1600s. This plant is emerging on the Huyck Preserve, particularly near the Lake Myosotis beach and along roads. Removal involves digging out the entire plant, including the root system.

Common barberry looks similar to the much more widespread Japanese barberry, but is larger in every way - the leaves are larger, the branches are longer, and the shrub can grow up to 10 feet tall.



Foliage of common barberry



Pale Swallow-wort (*Vincetoxicum rossicum*):

This invasive vine was introduced from Russia and Ukraine. A member of the milkweed family, this vine attracts and subsequently poisons beneficial pollinators such as monarch butterflies that typically use milkweed as a host. On the Huyck Preserve, this species is found on the Loop One and Wheeler Watson Trails. Eradication involves removing the entire plant, including the root system, which is particularly labor intensive. At the Huyck Preserve, we hope to contain the spread of this species by cutting back the plant prior to fruiting.

Notice the opposite, dark green leaves, the pale pink flowers and pod-like fruits.



Pale swallow-wort in fruit



Pale swallow-wort in flower (R.A. Nonenmacher)

Japanese Knotweed (*Reynoutria japonica*):

Native to East Asia, this species spreads underground through rhizomes and results in a monoculture, excluding all other species. This species is widespread on Preserve property south of Rensselaerville along the Ten-Mile Creek, but may be containable on the core area of the Preserve. We are currently managing Japanese knotweed near the boat launch. Mechanical management involves cutting the hollow stalks down to the ground once per month for several years to deplete the plants' stored resources. Knotweed spreads easily through sprouting fragments, so care should be taken to clean-up all green fragments during management.

Notice the bamboo-like appearance and alternate, arrowhead-shaped leaves.



This project was supported with funding from the NYSCPP and New York's Environmental Protection Fund (EPF). The NYSCPP is administered by the Land Trust Alliance, in coordination with the NYS DEC. Other aspects of the project were contracted by the Capital Mohawk Partnership for Regional Invasive Species Management using funds from the EPF as administered by the NYS DEC.