

# Twinney Pond – Ridgewood NJ



## Invasive Plant Species at Twinney Pond that Pose Ecological Threats here and throughout Ridgewood

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For more information on invasive plants in our area and how to protect our surrounding ecosystems and parks please check out these links:

NJ Invasive Strike Team Fact Sheets - <http://njisst.org/fact-sheets.htm>,

Importance of Natives in NJ - <http://njisst.org/files/GoNative.pdf>,

NJ Do Not Plant List - <http://njisst.org/documents/DoNotPlantList.pdf>

National Least Wanted List - <http://www.nps.gov/plants/alien/fact.htm>

Mid-Atlantic Plant Council website - <http://www.maipc.org/> and Mid-Atlantic Invaders List - <http://www.maipc.org/PlantInvadersMidAtlanticNaturalAreas5thEdition.pdf>

# Japanese Knotweed – *Fallopia japonica*

ORIGIN: Japan, China, Korea and Taiwan

LIFE FORM: Large Perennial

Japanese knotweed is one of the most destructive invasive plants in our area. It lines many of our roadways, river banks and ponds. It occupies in thick stands that do not allow any other plant to survive. It is ecologically devastating and difficult to eradicate. Root fragments can easily grow into full plants. It forms monocultures that resemble bamboo. The stems are hollow and die back in winter.

The leaves are large and the edges are smooth (without serrations). Base of the leaves are truncate (somewhat rectangular).

<https://efotg.sc.egov.usda.gov/references/public/mn/797japaneseknotweed.pdf>



Hollow bamboo-like stems



Large leaves with a flat base



White flower in summer



Produce seeds in late summer

# Multiflora Rose – *Rosa multiflora*

ORIGIN: Eastern Asia

LIFE FORM: Deciduous Shrub

Multiflora Rose is vigorous, successful in sunny and shady areas, and climbs up trees. It takes over in the forested understory and climbs into the mid-story. In areas of a low shrub community, multiflora rose can over-top and completely take over. The dense colonies make it difficult for native plants to grow. Rose typically has an arching habit that enables it to re-root once touching the ground and easily spread.

Watch out for the curved shaped thorns! They easily hook into your skin!

<http://www.nps.gov/plants/alien/pubs/midatlantic/romu.htm>

<http://na.fs.fed.us/spfo/invasiveplants/factsheets/pdf/multiflora-rose.pdf>



Leaves with 5-11 leaflets and serrated edges, the leaf base (the petiole) has fringed prickly hairs



clustered white or pale pink flowers – in late spring



Rosehips (seeds) red, visible in fall are dispersed by birds



Common look to the messy arching habit of the thorny stalks in fall and winter. Can form impenetrable walls.

# Garlic Mustard – *Alliaria petiolata*

ORIGIN: Northern Europe

LIFE FORM: Biennial (two year life cycle)

The leaves smell like garlic when crushed.

Garlic Mustard is vigorous, can be successful in sunny and shady areas, even in poor dry soil. It takes over in the forested understory and grows in place of native flowering plants. It is initially found along roadsides and edges where constant wind and transportation help disperse the seeds, from there it spreads into natural areas. Garlic mustard forms dense monoculture colonies that can easily double their size in 4 years.

<https://efotg.sc.egov.usda.gov/references/public/mn/garlicmustardmn.pdf>

<http://na.fs.fed.us/spfo/invasiveplants/factsheets/pdf/garlic-mustard.pdf>

<https://njaes.rutgers.edu/pubs/fs1212/>



Basal Leaves with scalloped edges, First year form



Seed pods form on stalks after flowering



White flowers in late spring of the 2<sup>nd</sup> year, grows 2-3ft tall



Dry seed pods and dead stalk in fall, end of the 2-year life cycle

# Mugwort – *Artemisia vulgaris*

ORIGIN: Europe & Asia

LIFE FORM: Perennial

Mugwort was used in herbal medicine and for brewing beer. The leaves have a distinct odor. Mugwort is an extremely fast grower, very invasive, and easily takes over sunny areas. It grows along with ragweed (another invasive plant, both of which are responsible for hayfever). Mugwort is allelopathic, meaning it has chemicals in the roots that inhibit growth of other plants. It forms dense monocultures and difficult to eradicate. Root fragments can grow into full plants. It is common in vacant lots, roadsides, garden beds, parks, and everywhere where there is some sun. It grows in place of native flowering plants and grasses and has no local ecological benefit.

<http://www.invasive.org/weedus/subject.html?sub=5148>

<https://restoringnativect.wordpress.com/category/invasives-and-naturalized-plants/mugwort-artemisia-vulgaris/>



Leaves are deeply divided and irregularly lobed



Typical clump of Mugwort



White underside of leaves



Late summer – fall small green flowers at the end of the stalks

# Norway Maple – *Acer platanoides*

ORIGIN: Europe & Russia

LIFE FORM: Tree

Norway Maple is one of the most commonly seen and distributed invasive plants in our area. A few decades ago it was commonly planted as street trees and since then escaped into every garden bed, vacant area, roadside and park. Norway Maple and many of its cultivars like 'Crimson King' are still being sold and planted by NJ nurseries and Landscapers. This plant is taking the place of other ecologically valuable native trees in our yards and parks. Norway Maple is a fast grower and difficult to eradicate.

All Maples have opposite leaves, which means that the buds and leaves are in pairs or in two's. **Norway maple can be distinguished from others by breaking a leaf off and seeing milky sap come out.**

[http://www.columbia.edu/itc/cerc/danoff-burg/invasion\\_bio/inv\\_spp\\_summ/Acer\\_platanoides.html](http://www.columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/Acer_platanoides.html)



Leaves are palmately lobed and usually wider than they are long



Seedling, with cotyledons (first leaves) Displaying the opposite leaf arrangement.



Mustache shaped samaras (seeds with wings)



Round wide bud with few large scales



Green flowers in Spring emerge before leaves



Young smooth stem, left  
Older furrowed bark, right.

# Tree of Heaven – *Ailanthus altissima*

ORIGIN: China and Taiwan

LIFE FORM: Tree

*Ailanthus* is a vigorous, very fast growing, invasive that can grow through cracks in concrete or sterile, dry soil. It usually occupies areas of full and partial sun. It is commonly found in vacant lots, roadsides, riversides, parks, and even garden beds. *Ailanthus* has many leaflets per leaf and has a palm tree-like appearance. It is commonly confused with native sumac trees by its appearance and because they occupy similar habitats.

*Ailanthus* is allelopathic, which means the leaf litter and roots exude a chemical that inhibits growth of other plants. It is very difficult to eradicate and can sprout from root fragments. **It has a distinct strong odor of burnt peanut butter.**

<http://www.nps.gov/plants/alien/pubs/midatlantic/ai.htm>

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/journeywithnature/tree-of-heaven-1.xml>



Leaves are long and compound with many leaflets



Light green flowers present in late spring - early summer



Smooth gray bark on the left, large U-shaped bud scars below the buds on the right



Leaflet bases have notches



Seedlings have leaflets in 3's  
It's easy to remove when small, early detection is key



Late summer, seeds are surrounded by a pink sheath called a samara

# Japanese Honeysuckle – *Lonicera japonica*

ORIGIN: Japan & Korea

LIFE FORM: Perennial Vine

Japanese honeysuckle is one of the most common vines found in natural areas growing as a ground cover, over-topping shrubs and climbing up trees. It re-roots easily and is difficult to eradicate. It over takes the forest floor and out-competes native plants like ferns, sedges, flowering plants, and mosses. It is often found intermixed with other invasive vines like Asiatic bittersweet and English Ivy. Japanese honeysuckle loses its leaves in the winter. The leaves grow in pairs (opposite leaf arrangement) .

<http://www.nps.gov/plants/alien/fact/loja1.htm>

<http://www.nps.gov/plants/alien/pubs/midatlantic/loja.htm>

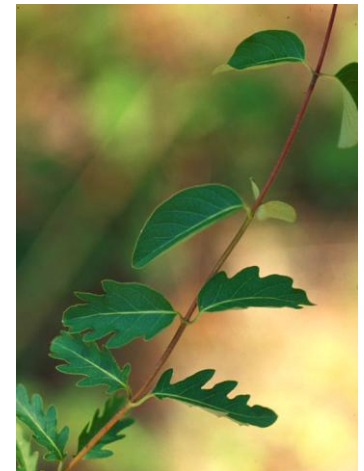
<http://www.invasive.org/browse/subinfo.cfm?sub=3039>



Leaves are in pairs, growing opposite each other ( in 2's)  
Most of the leaves have a smooth margin (not serrated)



Black berries form in pairs  
from the summer to fall



Some basal leaves are distinctly lobed



White slender flowers have long stamens and sweet smelling nectar



# English Ivy – *Hedera helix*

ORIGIN: Europe, Western Asia, North Africa

LIFE FORM: Perennial evergreen vine

English Ivy is a sought after plant because it is evergreen and tolerant of deep shade. It can grow in dry sterile soil and always looks presentable. It is traditionally adored, but has become ecologically devastating. It invades and covers the ground completely in forested areas and along borders. In Ridgewood and many locations it escapes from yards and into natural areas. It is often camouflaging other vines growing with it, like poison ivy.

In a forest, english ivy climbs up trees to the canopy, surrounds the entire trunk and can shade out a canopy tree completely.

<http://www.nps.gov/plants/alien/fact/hehe1.htm>

<http://www.nps.gov/plants/alien/pubs/midatlantic/hehe.htm>



Glossy dark green leaves with 3-5 pointed lobes and white veins



English Ivy invading a forest from the floor to the canopy

# Burdock – *Arctium minus*

ORIGIN: Europe

LIFE FORM: Biennial (2-year life cycle)

Burdock is common in parks, along roadsides, ditches, and even as a weed in garden beds. It was traditionally used in herbal medicine. Now, it is an invasive plant that takes the places of native plants in forests, meadows, roadsides and yards. The taproot is deep and difficult to fully remove. It has a biennial life cycle (2-year), thus removing before seeding is crucial for adequate control.

[http://www.na.fs.fed.us/fhp/invasive\\_plants/weeds/common-burdock.pdf](http://www.na.fs.fed.us/fhp/invasive_plants/weeds/common-burdock.pdf)

<http://www.invasiveplantatlas.org/subject.html?sub=5140>



Basal cluster of leaves, common appearance in the first year.



Purple flower emerge in the spring and summer from a spiny sphere in the second year



Leaves are pale, not glossy but matte and dull looking with a wrinkly appearance



After flowering the Burs turn dry and easily sticks to passersby to disperse seed at the end of the second year

# Bitter Dock – *Rumex obtusifolius*

ORIGIN: Europe

LIFE FORM: Perennial Herb

Bitter Dock is a very common invasive exotic . It usually occupies roadsides, waste places, parks, path edges and clearings where there is sufficient sun and rich soil. It grows in place of many native sun loving wildflowers. It has a deep taproot and very difficult to pull out from the soil. The leaves are glossy and darker green than its similar species burdock from the previous page. However, they do grow in similar environments and can be found growing near each other. The leaves of bitterdock are large and shade out other herbaceous species growing underneath.

<http://www.issg.org/database/species/ecology.asp?si=1420>

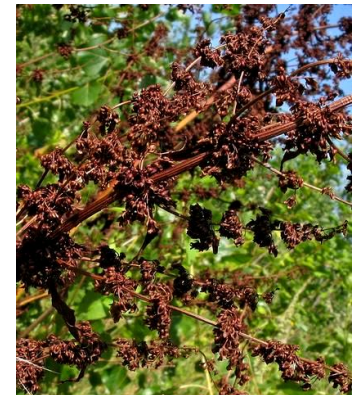
<http://www.invasiveplantatlas.org/subject.html?sub=6346>



Basal leaves, large and glossy with white veins turns red at the base.



Green discreet flowers



The seed pods develop in fall and dry out along with the stalks and persist into the winter.

# Burning Bush – *Euonymus alatus*

ORIGIN: Eastern Asia

LIFE FORM: Deciduous Shrub

ALSO KNOWN AS: Winged Euonymus, Wahoo

Burning bush turns bright red in the fall and is also called Winged Euonymus because its branches have wings. This plant is commonly planted throughout our area, in parking lots, commercial properties and private gardens. Even though it is commonly sold and planted in NJ, it is invasive here in NJ. It escapes and succeeds in sun, shade, dry or moist soil. Winged Euonymus reproduces from root sprouts and seedlings. Well established shrubs can create monocultures in the middle of a forest. These shrubs take the place of native tree seedlings and shrubs like arrowwood, elderberry, and witch hazel, that play important ecological roles in our natural communities.

<http://www.nps.gov/plants/alien/pubs/midatlantic/eual.htm>  
[https://www.eddmaps.org/ipane/ipanespecies/shrubs/Euonymus\\_alata.htm](https://www.eddmaps.org/ipane/ipanespecies/shrubs/Euonymus_alata.htm)



Leaves are opposite (in 2's) with smooth edges.



Light green flowers in the Spring



In September, Purple capsules open to 4 Red seed coats (arils) that each surround a black seed



Winged branches



Vibrant red fall foliage



Burning bush taking over the forest 's mid-story.

# Japanese stiltgrass – *Microstegium vimineum*

ORIGIN: Eastern Asia

LIFE FORM: Annual Grass

Japanese stiltgrass is one of the most common and prevalent invasive plants throughout the tri-state area. Very often it is found growing with turf grass, garden beds, wetlands, riverbanks, trail sides, forests and roadsides. Japanese stiltgrass spreads very quickly. The seeds are easily dispersed by lawn mowers, weed whackers, wind, and human disturbance. Japanese stiltgrass is difficult to eradicate, the seeds emerge in late summer. Early mowing before the seeds emerge for consecutive years can help reduce the populations. The epidemic spread of this plant is devastating to forested ecosystems in our area.

<http://www.nps.gov/plants/alien/pubs/midatlantic/mivi.htm>

<http://www.nps.gov/plants/alien/fact/mivi1.htm>



Leafy patch resembles miniature bamboo



Leaves appear to be on stilts, emerging from stalks



Japanese stiltgrass invasion of the herbaceous layer

# Barberry – *Berberis thunbergii* & *Berberis vulgaris*

ORIGIN: Eastern Asia & Europe

LIFE FORM: Deciduous Shrub

Barberry is an appropriate name for its barbs or spines. *Berberis thunbergii* is Japanese barberry, introduced in the USA in the 1800. *Berberis vulgaris* is common barberry, and planted here since colonial times.

Japanese barberry has many cultivars with differing leaf colors from lime green to purple. It is sold in all forms and in every garden center even though it is invasive and poses an ecological threat. It escapes into forested areas and can succeed in sun and shade. The fruit is dispersed by birds and it has a 90% germination rate. Barberry can spread quickly and take over the forest understory. Its leaf litter even changes the soil chemistry making it more basic, which dictates which species succeed and lowers native biodiversity.

<http://www.nps.gov/plants/alien/fact/beth1.htm>

[https://www.eddmaps.org/ipane/ipanespecies/shrubs/Berberis\\_vulgaris.htm](https://www.eddmaps.org/ipane/ipanespecies/shrubs/Berberis_vulgaris.htm)



Typical arching form enables it to re-root and spread



Red berries



Japanese Barberry , single spines per stipule



Small white flowers in spring



Fall color, varies per variety



Common Barberry, triple spine per stipule

# Butterfly bush – *Buddlea davidii*

ORIGIN: China

LIFE FORM: Deciduous Woody Shrub

Butterfly bush was recently a sought after focal point of pollinator gardens, and tremendously grew in popularity. It has escaped from plantings and is now invasive. It occupies riverbanks, roadsides, edges, vacant lots, and displaces native plants.

Butterfly bush has many cultivars of different bloom colors, but all are invasive. This plant is still being sold and regularly planted in NJ. Remember when planning a butterfly garden, only use natives and not butterfly bush. Scientists have also discovered that even though butterflies flock to this plant it contributes to the overall decline in monarchs (see the second source below).

[http://www.na.fs.fed.us/fhp/invasive\\_plants/weeds/butterfly\\_bush.pdf](http://www.na.fs.fed.us/fhp/invasive_plants/weeds/butterfly_bush.pdf)

<http://www.rodalorganiclife.com/garden/3-reasons-never-plant-butterfly-bush-again>

<http://www.nps.gov/plants/alien/map/buda1.htm>



Butterfly bush is most known for it's flowers that range from white to dark purple



The entire shrub has gray-ish color and an unruly form



Leaves have smooth margins



The leaves are in pairs (opposite leaf arrangement)



The underside of the leaves is white and has fine hairs, as well as the new stems



Woody stem is a light tan color and displays the opposite branching pattern

# White Mulberry – *Morus alba*

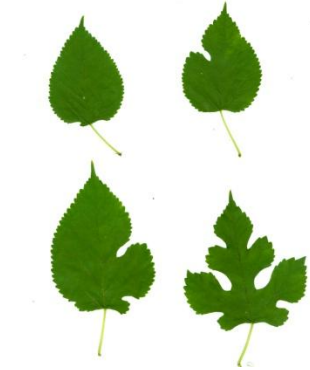
ORIGIN: China

LIFE FORM: Deciduous Tree

White mulberry is an invasive tree that can germinate in the shade but succeeds very well in sunny areas . It flourishes in any soil type. Mulberry leaves have toothed edges. The leaves start off with an oval shape and change through the season, developing lobes. These multiple forms occur on the same individual and is called polymorphism. This is a distinguishing feature. Mulberry can be confused with the native Hackberry, but Hackberry does not have different leaf shapes. Hackberry leaves have light undersides and round berries. Mulberry has raspberry looking fruit that are white turning red and purple. It is dispersed by birds, which helps it to become more invasive.

<http://www.nps.gov/plants/alien/pubs/midatlantic/maol.htm>

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/indiana/journeywithnature/white-mulberry.xml>



Mulberry's many leaf shapes



White berries turning pink to red



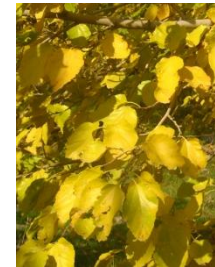
Mulberry leaf - left



Hackberry leaf - right



Wide multi-stem form which semi-weeping branch habit



Yellow fall color



Furrowed bark with braiding ridges



Distinguishing features from Mulberry - Hackberry has light green/gray underside and round berries



# Asiatic bittersweet – *Celastrus orbiculatus*

ORIGIN: Eastern Asia

LIFE FORM: Deciduous Woody Vine

Asiatic bittersweet is a vigorous invasive vine that grows quickly as a ground cover, in the shape of an unruly shrub and climbs far up into the tops of canopy trees. The vines grow thick and large in time resembling a giant woody boa constrictor. The vine re-roots and acts as a groundcover. The color of the roots is an unmistakable orange. The leaves are round to oval with a small pointed tip and a toothed margin. The berries are small and bright red that emerge from orange capsules. The berries are dispersed by birds. Asiatic bittersweet is a wide spread invasive that proliferates everywhere in all habitat types, forests, parks, meadows, roadsides, vacant lots, dry or moist sites. It is found throughout the USA and considered very invasive and a severe ecological threat.

<http://www.nps.gov/plants/alien/pubs/midatlantic/ceor.htm>

<http://www.nps.gov/plants/alien/fact/ceor1.htm>

<http://na.fs.fed.us/spfo/invasiveplants/factsheets/pdf/oriental-bittersweet.pdf>



Round leaves and discreet white-ish flowers



Red berries emerged from



Celastrus vine strangling a tree trunk



Celastrus taking over a river bank ecosystem



Bittersweet creating an impenetrable wall of vines on the edge of a park

# Siberian Crabapple and other invasive crabapples – *Malus baccata*, *Malus sylvestris*, *Malus toringa* etc.

ORIGIN: Europe & Asia

LIFE FORM: Midstory Deciduous Tree

There are many historic cultivars of apples and crabapples that have been planted on the east coast since colonial times. The typical crabapples we find in our local forests are varieties of *Malus baccata*, however it is possible to find other varieties escaping in our local natural areas. Many refer to Crabapples as naturalized, however they displace native understory shrubs like witchhazel and arrowwood in our local forests. Siberian crabapple is found throughout northern NJ and southern NY state.

The leaf shape looks very similar to other small trees, but the perpendicular branching pattern is a distinctive feature. It is often confused with Hawthorne species, however crabapples lack sharp spines.

<https://gobotany.newenglandwild.org/species/malus/baccata/>



White flowers in Spring in sunny areas



Curved veins toward the leaf tip. Reddish brown fall color



Yellow-red fruit appear in summer and fall on some individuals



Old trunks have gray blocky and flaky bark



Smooth gray young bark and perpendicular branching pattern

# Other Invasive Plants to watch out for in Ridgewood's Wildscapes



Purple loosestrife –  
*Lythrum salicaria*



Lesser celandine –  
*Ficaria verna*



Common Reed –  
*Phragmites australis*



Ground Ivy –  
*Glechoma hederacea*



Yellow Flag Iris –  
*Iris pseudacorus*



Wisteria –  
*Wisteria sinensis*  
*Wisteria japonica*



Japanese Spirea – *Spirea japonica*



Myrtle – *Vinca minor*



Pachysandra –  
*Pachysandra terminalis*



Chinese silvergrass –  
*Miscanthus sinensis*



Privet – *Ligustrum spp.*



Eurasian Bush Honeysuckle – *Lonicera spp.*

These plants have significant populations in local natural areas and parks in Ridgewood. They are all aggressive invasive plants. Please add them to your do not plant list.