

It's My Park | Weeds and Invasive Plants

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All weeding projects must be approved by NYC Parks staff.

<u>Weeds</u> are plants that are considered undesirable in a specific location. Plants that are labeled as a weed often possess traits that make them grow easily, spread quickly, and inhibit the growth of other plants. Due to these traits, these plants often require frequent management and control through various methods in order to inhibit their growth and spread each year. It is important to note that while a plant may be considered a weed in one location, it may not be considered a weed in another location. These plants can be either native or invasive to an area.

Tips for Removing Weeds

- Do not remove plants from parks without prior approval from NYC Parks staff.
- Once approved to carry out the project, do not remove plants that you cannot identify. There are many plants that look similar to one another, so it is important to correctly identify something before removing it.
- If at all possible, remove the entire plant including the roots in order to inhibit future growth and spreading.
- After the weed is removed, shake off as much soil as possible and place the weed in a garbage bag.

<u>Invasive plants</u> do not originate from the area; they were introduced and spread through natural processes or human activities, creating various problems. Invasive plants have a tendency to spread, produce large quantities of seed, thrive on disturbed soil, and cause damage to the natural environment. Since invasive species have not evolved alongside the native species in the area, they have few predators and therefore are able to replace native flora, reduce plant diversity, and disrupt the local ecosystem.



Tips For Removing Invasive Plants

- Do not remove plants from parks without prior approval from NYC Parks staff.
- Once approved to carry out the project, do not remove plants that you cannot identify. There are many plants that look similar to one another, so it is important to correctly identify something before removing it. Additionally, pulling, cutting, and disturbing the soil — especially when plants are in seed — may lead to further unintended spreading of the species.
- Pay attention to the time of year that is recommended to remove the invasive plant.
- Disturb as little of the soil as possible.
- Whenever possible, any invasive plants removed should be placed in a garbage bag and removed from the site. If left on the ground, there is a chance they will grow back.
- Protective gear, such as heavy duty gloves, face masks, and long pants may be required if the plant presents any safety hazards such as the thorns found in Japanese barberry.





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Common Plant Name	Facts	Picture
Autumn Olive (Eleagnus umbellata) Information	Common Names & Origin: - Also known as Japanese silverberry and spreading oleaster. - Native to Asia. Identification: - Deciduous shrub that can grow as tall as 20 ft. - Pale yellow flowers bloom in early spring and bring an abundance of pink to red berries dotted with scales. - To help distinguish from other shrubs, look for silvery scales found on the lower leaf surface. Concerns: - Attempts to remove through cutting or burning can result in even more spreading. - Outcompetes and displaces native plants by creating a dense shade that hinders any growth below. - Can produce up to 200,000 seeds per year and reproduces quickly. - Birds enjoy the seeds and help spread them. - Nitrogen-fixing root nodules allow it to grow in almost any soil. Removal: - Volunteers can hand-pull seedlings before the plant fruits in order to prevent further spreading of seeds. - Cutting or burning alone will not remove the plant.	



Common Chickweed (*Stellaria media*)

<u>Information</u>

Origin:

- Native to Europe.

<u>Identification:</u>

- A winter annual that thrives in cool, wet weather.
- Forms a dense mat of spreading stems patches typically on lawns, landscape gardens, and turf fields.
- Grows in a unique, intertwined manner.
- Blooms in early to mid spring and has small, white flowers that have a slight split at the tip of each petal.
- Leaves occur opposite each other and are toothless and stalkless.

Concerns:

- Can spread from new roots emerging from nodes on the stems, making it an extremely prolific and hardy weed.
- Forms dense mats that inhibit the growth of other plants and requires extensive control and removals each year.

- Remove chickweed manually before it flowers and goes to seed in the springtime.
- Chickweed is a shallow-rooted plant and will come out easily, but it is important to bag all plants removed instead of leaving them on the ground to inhibit further growth.
- Extensive raking and mowing can also be an effective way to control the growth each spring but will not remove any dense patch permanently.









Common Dandelion (*Taraxacum officinale*)

Origin:

- Native to Eurasia and has established itself in North America. <u>Identification:</u>
- Leaves are jagged, deeply toothed, hairless.
- Flowers are large, yellow blossoms that mature into round, white puffballs full of seeds, usually in the spring.
- Stems rise from rosettes of leaves. Concerns:
- These plants have tap roots that grow deep into the ground so they are challenging to completely remove.

Removal:

- Strategies include hand-pulling, but the best way to remove the plant completely is to use hand tools such as a trowel or weeding fork.





English Ivy (*Hedera helix*)

<u>Information</u>

Common Names & Origin:

- Also known as common ivy and European ivy.
- Native to Europe and Asia. <u>Identification:</u>
- An evergreen, perennial climbing vine.
- Leaves are waxy with white veins.
- Flowering occurs in late summer to early fall flowers are small and green-yellow.
- Fruits appear like black/purple-colored berries. Concerns:

- New plants grow easily from cuttings or stem fragments that make contact with the ground.

- Can aggressively grow on the forest ground all the way up to the canopy





through vines.

- Can block sunlight, smother, and weigh down other plants.

Removal:

- Can cause skin irritation — when removing, it is best to wear gloves and make sure to throw away any plant sections that were cut as stem and root cuttings can repopulate if left on the ground.





Garlic Mustard (*Alliaria petiolata*)

<u>Information</u>

Origin:

- Native to Europe, Asia, and Africa. <u>Identification:</u>
- A biennial flowering herb in the mustard family.
- First year plants are low to the ground with rounded, kidney-shaped leaves that have scalloped edges.
- By the second year it will shoot straight up into a tall plant with clusters of white flowers, each with four petals.
- Leaves smell like garlic if crushed. Concerns:
- It is difficult to control once established.





- It can self-pollinate and cross-pollinate.
- Its high seed production rate outcompetes much of the native understory vegetation.
- It produces chemicals which disrupt the growth of other plants.

Removal:

- Strategies include hand-pulling (roots included) and flowering stem cutting.
- Any flowering plants must be placed in the garbage and not left on the ground.
- After removal, it helps to put mulch down to reduce the chance of future seed germination.





Ground Elder (Aegopodium podagraria)

Information

Common Names & Origin:

- Also known as goutweed, bishop's-weed, and snow on the mountain.
- Native to Europe and Northern Asia.

Identification:

- Commonly used as a groundcover plant.
- Herbaceous perennial in the carrot family.
- Leaves rising from the rhizome can grow to about one foot tall and typically outnumber the flower-bearing stems.
- Leaves are long petioles and leaflets are arranged in groups of 3.
- Fertile stems can grow to 2-3 ft and





bear small, white, five-petaled flowers in mid-summer.

Concerns:

- Aggressive characteristics that can easily dominate the herbaceous layer of forests.
- Can thrive in a range of soil types. Removal:
- Strategies include digging up the entire plant, rhizome included.
- Removals must be bagged and disposed of instead of being left on the ground.





Hedge Bindweed (*Calystegia sepium*)

Origin:

- Native to Europe and Asia. Identification:
- Leaves are arrowhead-shaped with large basal lobes.
- Flowers are large, trumpet-shaped, and white.
- Stems are light-green to red herbaceous vine that climbs over fencing or other plants for support.
- Concerns:
- As a vine, this weed can grow very quickly.
- It also has a complex root system.
- It grows from seed as well as any roots left in soil.
- It is drought-tolerant and does well in disturbed soil.





Removal:

- Strategies include hand-pulling (roots included) which should be combined with mulching.
- It is best to continue these strategies for a few years to ensure the bindweed doesn't return.

Japanese Barberry (Berberis thunbergii)

Information

Origin:

- Native to Japan and Eastern Asia.
- Brought to the U.S. as a popular landscape shrub with bright foliage, shade tolerance, and resistance to deer.

Identification:

- A multi-stemmed shrub.
- Young stems are reddish, while older stems turn gray.
- Notorious for spikes on stems.
- Leaves are oval, clustered with colors ranging from green to red and purple.
- Flowers are pale yellow with 6 petals
- In the summer they produce showy, red, oval-shaped fruits that persist through winter.

Concerns:

- Its resiliency as a shade-tolerant and deer-resistant shrub has made this plant spread rapidly.
- Its thick understory overcrowds and takes sunlight from native plants and reduces wildlife habitat.
- Prolific seed-producer birds and small animals eat and spread the
- It can also spread by rooting from branches touching the ground.

Removal:

- Strategies include hand-pulling (roots included) or the use of heavier



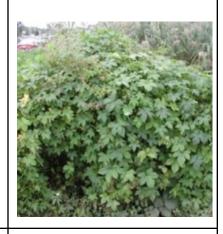






	tools such as a garden spade or weed wrench. - Due to thorns, gloves must be worn throughout the removal process. - Make sure to throw away any plant sections that were cut — stem and root cuttings can repopulate if left on the ground.	
Japanese Hop (Humulus japonicus) Information	Common Names & Origin: - Also known as wild hop. - Native to Asia. Identification: - An annual vine that has lobed leaves with toothed margins. - Stems are covered in small prickles and either trail on the ground or climb upwards. - Female flowers occur in cone-shaped clusters that hang downwards (called hops), male flowers appear as upright stems. - Fruits are yellow-brownish and dry. Concerns: - This fast-growing vine can grow up to 35 feet in one season. - Can form dense patches and smother native plant populations. Removal: - Strategies typically focus on pulling and removing plants (roots included) before they flower and set seed in August. - Gloves are needed to protect against prickles. - Bag and discard all plant material removed.	





Japanese Knotweed (*Fallopia japonica*)

<u>Information</u>

Origin:

- Native to Asia.

<u>Identification:</u>

- During spring, red/purple asparagus-like shoots appear and can quickly form into a longer stem with a zig-zag pattern and green heart-shaped leaves.
- By summer, these plants have hollow, thick stems with purple speckles that can reach up to 10 ft in height.
- Flowers in the summer appear as cream/white-colored and form in clusters.

Concerns:

- Growing up to 2 cm a day, these plants can rapidly spread and transform into dense stands of thick stems and leaves.
- In addition to spreading to moist areas, it also takes advantage of areas disturbed by humans.
- The rhizomes can spread several meters outwards from the visible stems above-ground which makes them even easier to spread without knowing.
- These plants outcompete native







plants easily, reducing sunlight and resources available to plants and aquatic organisms.

Removal:

- Strategies include removing and digging out roots with heavy tools such as weed wrenches, cutting the stem, and smothering smaller weeds with tarps.
- Make sure to bag and discard all plant material removed.





Kudzu (*Pueraria montana*)

<u>Information</u>

Common Names & Origin:

- Also known as Japanese arrowroot.
- Native to Asia.

Identification:

- Trailing or climbing perennial vine.
- Stems and leaves are hairy.
- Leaves are dark green and compound with three oval-shaped leaflets.
- Flowers are purple, fragrant, and hang in long clusters.
- Seed pods are brown, hairy, and flat.

Concerns:

- This vine can grow up to a foot a day and cause significant damage to native plants.
- Vines can grow up to 100 ft and can smother trees and other structures it





climbs.

- Its hardiness makes it quickly outcompete other plants. Removal:

- The entire root system must be destroyed in order to control this vine.

- Cutting and hand-digging to remove roots and smaller vines is one way to reduce growth.









Mile-a-Minute (*Persicaria perfoliata*)

<u>Information</u>

Common Names & Origin:

- Also known as Asiatic tearthumb.
- Native to Asia.

Identification:

- An annual, herbaceous vine with light-green, triangle-shaped leaves.
- The vines and undersides of leaves are lined with recurved barbs that assist with climbing.
- Produces small, white flowers and eventually blue-colored fruits.

 <u>Concerns:</u>
- Self-pollinating, seeds are easily spread.
- Growing up to six inches a day, these plants can quickly smother other plants by forming dense mats that block sunlight, weigh down and stress native vegetation.

- Strategies include hand-pulling of the vines — the earlier in the development of the vines, the easier they are to remove.
- Gloves are needed to protect against the barbs.
- Removal should be done prior to the fruit/berries forming to prevent further spreading.











Mugwort (*Artemisia vulgaris*)

<u>Information</u>

Common Names & Origin:

- Also known as false chrysanthemum.
- Native to Europe and Asia. Identification:
- Tall stalks.
- Pointed leaves with silver/green colored undersides.
- Flowers are produced in the summer and are small and white/purple colored.

Concerns:

- Due to its interconnected root systems, it tends to grow into large stands that occupy the entire landscape vegetation and displace native plants.
- It spreads aggressively through an extensive system where plants can regenerate from rhizome fragments. Removal:
- The dense and easily spread root system makes it difficult to control this plant.
- Strategies include hand-pulling and thick mulching of infested areas.
- Removal requires consistent follow up due to its extensive rhizome system it is not recommended to chop up the root system.









Multiflora Rose (Rosa multiflora)

<u>Information</u>

Common Names & Origin:

- Also known as rambler rose and baby rose.
- Native to Asia.

Identification:

- Vigorous perennial shrub.
- Thorny and multi-stemmed, the stems can grow up to 10 ft high and be red to green in color.
- Leaves are pinnately divided into 5-11 sharp-toothed leaflets.
- Flowers form in white-colored to pink-colored clusters.
- Fruits persist through winter and are clustered, small, and bright red.

Concerns:

- These shrubs form dense thickets, easily blocking other native plants from forming and surviving.
- Can climb into the lower branches of trees and impact the tree and understory vegetation.
- Can reproduce through seed dispersal and also when the tips of plants touch the ground and form new roots.

- Strategies include removing seedlings by hand or using heavier tools to dig out thicker roots.
- It is important to remove the roots entirely.
- Gloves must be worn to protect against thorns.











Norway Maple (Acer platanoides)

Information

Origin:

- Native to Europe.

<u>Identification:</u>

- Bark is gray and with slight ridges and furrows.
- Simple leaves that are slightly broader than those of a sugar maple.
- Produces small, pale yellow flowers in clusters.
- Produces winged seeds in pairs that begin as green and turn brown over time.

Concerns:

- Tolerant of urban conditions and easily outcompetes many native trees.
- Its broad, thick crown shades out other plants.
- Can become an aggressive, weedy plant through self-seeding and propagation.

Removal:

- It's only possible to remove young weed trees/seedlings — this is done through hand-pulling or with heavier tools such as a weed wrench.





Oriental Bittersweet (Celastrus orbiculatus)

Information

Common Names & Origin:

- Also known as Asian bittersweet and Asiatic bittersweet.
- Native to Asia.

Identification:

- Woody vine that has a twinning nature that clings to anything going up or down.
- Leaves are green, rounded, glossy, and finely-toothed they turn yellow in the fall.
- The stem can oftentimes look more like bark it is brown with bright orange roots.





- Produces clusters of small, green/yellow flowers.
- Produces clusters of small fruits with orange/yellow outer skins covering a bright-red aril.

Concerns:

- As it grows, this plant chokes other trees and shrubs that it clings to.
- Can spread from tree to tree through the canopy and also through underground roots.
- Can germinate readily in sun or shade.

- Manual methods are not typically ideal to remove this species due to its tree-like density and tendency to spread through roots.
- It is not recommended to remove this vine as it could lead to further spreading.











Phragmites (*Phragmites australis*)

Information

Common Names & Origin:

- Also known as common reed.
- Native to Asia.
- Note: there is also a variety native to North America it is not very common.

Identification:

- Perennial, aggressive wetland grass.
- Easy to spot by its distinctive height and fluffy seed heads.
- Stems are primarily green dead stems and new growth can both be found together.
- Leaves are green, narrow, long, triangle-shaped, and look a lot like corn stalks.
- Seed heads are light brown-colored and fluffy.

Concerns:

- Can grow up to 18 ft tall and poses a large threat to wetland biodiversity.
- The dense strands outcompete and block out native vegetation which reduces native plant and wildlife populations.
- Can rapidly reproduce by seed or by rooting from broken stems and rhizomes.

- Weed cutters can be used to cut the base of phragmites and slow growth.
- Young plants can be manually removed, roots included.
- Typically, volunteers will not assist with the removal of fully-grown phragmites due to its ability to spread through rhizomes.









Porcelain Berry (Ampelopsis brevipedunculata)

<u>Informatio</u>n

Common Names & Origin:

- Also known as creeper.
- Native to Asia.

Identification:

- A deciduous, woody, perennial climbing vine.
- Leaves are deeply lobed and look similar to grape leaves.
- The underside of leaves and young twigs are hairy.
- Small green-yellow flowers.
- Shiny, hard berries in a number of shades of color including purple, blue, yellow, and green.

Concerns:

- The vigorous vines outcompete native vegetation by reducing sunlight, water, nutrients, and space.
- Spreads through seed and layering.
- A single vine can grow over 25 ft long.

- Volunteers can hand-pull vines in the fall or spring to prevent flower buds from forming in the following season.
- Vines need to be pulled before the fruits appear to prevent further seed spreading.
- As the vine grows, it will become more difficult to manually control and other strategies will need to be used.











Purple Loosestrife (Lythrum salicaria)

<u>Information</u>

Origin:

- Native to Europe and Asia. <u>Identification:</u>
- Perennial forb usually found in moist or marshy sites.
- Can be distinguished from other loosestrifes (species of *Lythrum*) by its stems that end in dense flower spikes.
- Leaves can be opposite or whorled.
- The rose to purple colored flowers are arranged on a spike each flower has 5-7 petals arising from a green tube.
- The roots become thick and woody in mature plants.
- Can easily be confused with fireweed, swamp loosestrife, winged loosestrife, and blue vervain.

Concerns:

- A hardy perennial that can rapidly degrade fragile wetlands and remove habitats for the biodiverse wildlife wetlands support.
- It has also been known to infest drier habitats.

- The best time is in late June, July, or early August when the plant is in flower flowering plants are easily distinguishable and have not yet gone to seed where they may spread.
- Volunteers can hand-pull or dig up plants when they are young and fairly small
- Removing the root, or at least as much of the root as possible, is important as broken roots may grow back.
- Make sure to bag all removed









	plants and do not leave them on the ground where they can grow back.	
Spotted Ladysthumb (Persicarisa maculosa) Information	Common Names & Origin: - Also known as redshank and Jesusplant. - Native to Europe and Asia. Identification: - A summer annual weed growing up to ~3 ft tall. - Stems are thin and floppy. - Leaves are alternate and often with a black or brown spot in the middle. - Flowers are tiny, pink, and clustered tightly together. Concerns: - Spreading by seed, these weeds readily colonize landscapes and take away habitat and resources for native vegetation. Removal: - Volunteers can hand-pull weeds — this is fairly easy to do given the small size and root structure of these plants.	
White Mulberry (Morus alba) Information	Origin: - Native to China. Identification: - Tall, deciduous tree Leaves are long and shiny with blunt teeth and heart-shaped bases The bark along the roots and the inner bark along the trunk are often orange-colored Older bark is gray Flowers appear in April — trees	



primarily have male and female flowers on separate plants.

- The male flowers are small, green, and appear in long catkins.
- The female flowers are crowded in short spikes.
- Fruits/berries can range from black, to pink or white in coloring.

 <u>Concerns:</u>
- Invades disturbed areas quickly including old fields, urban lots, roadsides, and forest edges.
- It displaces native species, including the red mulberry.

Removal:

- Volunteers can use shovels to dig up small saplings — the roots must be removed entirely to prevent the tree from growing back.







Winged Euonymus (Euonymus alatus)

Information

Common Names & Origin:

- Also known as burning bush.
- Native to China, Japan, and Korea. Identification:
- Deciduous shrub that can grow up to 20 ft in height.
- Distinguishable by the 2-4 corky ridges that often form along the length of young stems.
- Long, dark green leaves that are smooth, round, and taper at the tips.
- Leaves turn a bright crimson/purple color in the fall.
- Fruits appear in the fall reddish





capsules split to reveal orange fleshy seeds.

Concerns:

- Invades disturbed and undisturbed areas quickly.
- Forms dense thickets that displace native vegetation.
- Wildlife enjoy the fruit and contribute to its spread.

- Use shovels or weed wrenches to dig or pull out plants.
- Spring or early summer cutting will slow its growth but may not fully inhibit flower, fruit, and seed production.









General Resources

- DEC New York State Invasive Plants
- NYBG Invasive Plants in the NYC Region
- Invasive Plant Atlas of the United States
- U.S. Forest Service Invasive Plants
- U.S.D.A. National Invasive Species Information Center
- Lower Hudson PRISM

Resources for Identifying and Recording Invasive Plants

- <u>iNaturalist</u>
- Seek by iNaturalist
- EDDMapS
- Wild Spotter



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