Wanted Dead, not Alive

For the crime of replacing native plants

Reward: Healthy Ecosystem

This guide on non-native invasive plants was produced by the PF Environmental Committee so PF members can help in the mission of being environmental stewards of PF's land and forests. But you may ask...

Why are invasives a problem?

- They form monocultures and reduce diversity of our fields and forests.
- They change natural ecological processes, such as plant community succession.
- Invasives upset our food webs. Native insects can't eat plants they did not evolve with. Fewer insects mean less food for birds to feed their young.
- Fruits of most invasives do not have the proper nutrition for our migrating birds.
- Invasives can suppress new trees from sprouting in forests.
- Invasives can change the characteristics of the soil making it less suitable for our native plants.

What can I do?

- Don't buy or plant invasives on your lot.
- Patrol your lot and gardens for invasives.

Credits:* "Don't Plant a Pest" by Connie Schmotzer, Penn State Extension, October, 2020

*PA DCNR https://www.pa.gov/agencies/dcnr/conservation/wild-plants/invasive-plants.html

The Environmental Committee is committed to ensuring the health of the natural world at Paradise Falls. To that end, the committee works to educate PFLA members on environmental stewardship of our land, forests, and waters, and the integral part

PFLA Environmental Committee

2025

Garlic Mustard Identification & Control Methods

Problem:
Garlic mustard is capable of invading mature forests and open areas. It quickly crowds out native plants by taking resources and emitting a chemical that stops seed germination of other species

Identification:
Garlic mustard is an herb with triangular to kidney-shaped leaves that give off an odor of garlic when crushed. Garlic Mustard lives 2 years (a biennial). First year plants have a low growing circular (rosette) arrangement of more kidney-shaped leaves that remain green through winter. The second year plant is more identifiable. It is taller with more triangular-shaped leaves, subsequently forming erect button-like clusters of white flowers, and then slender seed pods by May

First year foliage

Second year foliage and flower

Controls:

1. For small infestations, hand pulling before the second year seed shatter stage is extremely effective and easy to do. Larger infestations may be controlled by cutting, which is done when the plant is in flower. All plant material should be removed from the site following removal, since seeds can still develop on cut stems.
2. PFLA EC encourages chemical use only after exhausting other options, but for heavy infestations, if the risk to surrounding plants is minimal, the systemic herbicide glyphosate (Round-up ™) may be useful. Chemical control is best done in late fall of the first year when most native plants are dormant. Herbicides can be applied at any time of the year, including winter (to kill overwintering rosettes) if it is above 50°F. Be sure to read pesticide labels thoroughly and follow instructions for safe application.

For more information on Garlic Mustard and specifics about identification and control, see https://extension.psu.edu/garlic-mustard

Japanese Barberry Identification & Control Methods

Problem:
Japanese Barberry can colonize woods and woodland edges, crowding out native plants and disrupting ecosystems. Research also shows it can increase the presence of black-legged ticks, which transmit Lyme disease.

Identification:
A dense compact shrub often with drooping branches that may root where they touch the ground. Leaves are spoon shaped 1 inch or less in length with smooth edges. Leaves can be leathery, bright green especially on new growth, but can be tinged red or purple towards autumn. Single spines are found along the stems.

Spoon-shaped leaves

Forest stand

Controls:
1. Pulling or digging can be effective if the plants are small and do not have well-established root systems. Pull or dig them up, taking care to remove as much of the root system as possible.
2. "Cut stump treatment" for larger plants can be done during the growing season, and is especially effective August through October when the plant begins returning energy to its root system. If only cut, Japanese Barberry will resprout. To prevent resprouting and kill to the root:
    a. Using as few cuts as needed, cut the plant close to the ground.
    b. On the cut surface of the remaining stumps/stems, immediately apply a concentrated glyphosate-based herbicide (contains at least 40% of the active ingredient glyphosate) that has been mixed with water in a 50:50 ratio (a 50% solution).

IMPORTANT: Due to sharp spines, use thick gloves. Ticks may be present so light-colored long sleeves and pants a/o insect repellant are also recommended.
Follow all herbicide instructions – recommended rates, application methods, and use of personal protective equipment.

For more information on Japanese Barberry and specifics about identification and control, see https://extension.psu.edu/japanese-barberry

Japanese Knotweed Identification & Control Methods

Problem:
Knotweed is a highly successful invader of wetlands, stream corridors, forest edges, and drainage ditches. The dense thicket of tangled stems and large leaves creates a monoculture, excluding nearly all other vegetation. Streamside Knotweed provides poor erosion control, and its presence gradually degrades aquatic habitat and water quality.

Identification:
Growing up to 11 feet tall, Knotweed stems superficially resemble bamboo, its jointed, hollow stem has many red or purple nodes where spade or heart-shaped leaves up to 6 inches long are attached. The stems are otherwise smooth, bright green, and often covered with darker spots or streaks. Portions of the stem bearing leaves appear to zigzag from node to node. Lower leaves are often shed as the plant grows. In late summer, white or pale green flower clusters sprout from the nodes. The fingerlike clusters are 3 to 4 inches long

Bamboo-like stem

Zig-zagging foliage

Thicket in flower

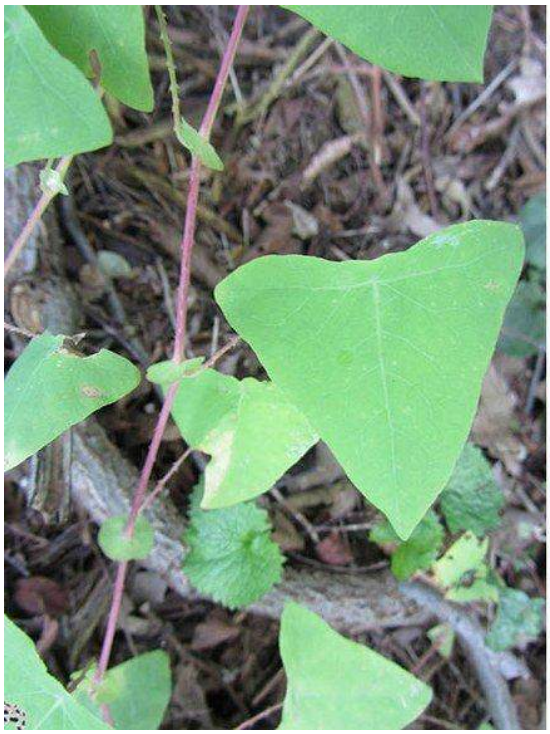
Controls:
1. Notify the Environmental Committee if you notice Knotweed on PFLA grounds or member lots PFLAinfo@yahoo.com. This invasive is very difficult to control effectively.
2. The objective in controlling Japanese knotweed is eliminating the creeping underground stems (rhizomes) that give rise to new shoots and roots. Digging rhizomes is not effective. Control takes at least 2 seasons of properly timed cutback followed by herbicide. The publication below explains more on this, however we recommend PFLA Environmental Committee assistance.

For more information on Japanese Knotweed and specifics about identification and control, see https://extension.psu.edu/japanese-and-giant-knotweed

Mile-a-Minute Identification & Control Methods

Problem:
Mile-a-minute is a fast growing trailing vine that can grow up to 6 inches a day and to 30 feet long. The dense foliage of this invasive weed blankets and slowly suffocates native vegetation, making it extremely destructive and persistent.

Identification:
The vine is identified by its triangular or arrow shaped leaves (1-3 inches long), hooked barbs on the underside of the leaf stem, and round leaf-like structure that completely encircles the base of the leaf stem. Blue to purple berrylike fruit appear in late summer and is the main means of propagation and spread.



Controls:
1. Notify the Environmental Committee if you notice this vine on common grounds PFLAinfo@yahoo.com.
2. On member lots small infestations can be treated by pulling the plant (wear gloves and long sleeves to protect from barbs). In early spring before berries form, pulled plants can be left on site to dry. If berries are present, the pulled plant will need to be bagged and discarded to prevent further dissemination of seeds.
3. PFLA EC encourages chemical use only after exhausting other options, but preemergence herbicides that contain the active ingredient Prodiamine or Pendimethalin can be used in areas of known infestations. These are applied to the soil in late February through mid March. Be sure to read pesticide labels thoroughly and follow instructions for safe application.

For more information on Mile-a-minute and specifics about identification and control, see https://extension.psu.edu/mile-a-minute

Japanese Stiltgrass Identification & Control Methods

Problem:
Stiltgrass is a widespread invader often found growing along trails and roads, quickly spreading to the forest understory. It is an annual grass that germinates in the spring and dies back each fall. A prolific seeder with a sprawling growth habit, the tiny seeds are carried on hikers' shoes, cars, ATVs, etc. Once introduced, it is extremely difficult to remove from a site.

Identification:
Stems form a dense, tangled mat usually 1 to 3 feet in height and are thin, delicate, and wiry with many interconnected via a horizontal runner, from which the roots emerge. The stems remain over winter, forming a dense, collapsed matted layer over the soil. Leaves are lance shaped between 1 and 3 inches in length. A silvery, slightly off-center stripe runs the length of each leaf. A 3-branched flower spike 1 to 2 inches in length emerges in late summer, maturing to bear the seeds.

Leaves with silvery stripe

3-branched flower spike

Stiltgrass Thicket

Controls:
1. Small infestations of stiltgrass are easily pulled, as the roots are very shallow. String trimming large infestations at ground level is also effective because it removes all stem tissue. Timing is critical. Current recommendation is to delay pulling or cutting until June to avoid a second flush of germination, and to complete it before seed head emergence in late August.
2. PFLA EC encourages chemical use only after exhausting other options, however per the publication referenced below, applications of certain pre-emergence herbicides in late winter before growth emerges, or post-emergent herbicides prior to the flowering stage in late summer can be effective.

For more information on Japanese Stiltgrass and specifics about identification and control, see https://extension.psu.edu/japanese-stiltgrass

PFLA Invasive Plant Management Calendar

= Growth Stage = PF top control recommendation = Other control recommendations

GARLIC MUSTARD	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
									
Flowering and Seed Set									
Small Stands - Pull by Hand & Bag									
Foliar Herbicide									

*adapted from https://extension.psu.edu/garlic-mustard

JAPANESE BARBERRY	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
									
Leaf Out									
Flowering & Seed Ripening									
Remove/Dig Shoots & Roots									
Foliar Herbicide									
Cut Stem Herbicide									

*adapted from https://extension.psu.edu/japanese-barberry

JAPANESE KNOTWEED	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
									
Growth Initiation									
Flowering & Seed Ripening									
Ask PFLA Env. Committee for help									
Prune/Cut Prior to Herbicide				-8 wks					
Foliar Herbicide after Cutting						8-9 wks after			

*adapted from https://extension.psu.edu/japanese-and-giant-knotweed

MILE-A-MINUTE VINE	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
									
Preemergence Herbicide									
Germination / Growth Emergence									
Flower & Seed Ripening									
Hand Pull Shoots & Roots					Bag if seed is present				
Foliar Herbicide					Less ideal				

*adapted from https://extension.psu.edu/mile-a-minute

JAPANESE STILTGRASS	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
									
Germination / Growth Emergence									
Postemergence Herbicide									
Small Stands - Hand Pull									
Large Stands - Weedeat to Ground									
Flower & Seed Ripening									

*adapted from https://extension.psu.edu/japanese-stiltgrass

Mar 16, 2025