

INVASIVE SPECIES are non-native plants, animals and other organisms that cause harm or are likely to cause harm in the ecosystem where they are introduced by outcompeting or displacing native species. They oftentimes are fast growing and can spread quickly, so their management requires an all-hands-on-deck approach by municipal staff and residential property owners looking out for and removing invasive species wherever possible. Examples of invasive plants in Connecticut include Oriental Bittersweet, Multiflora Rose and Winged Euonymus/Burning Bush. Invasive aquatics include Zebra Mussels and Curly Leaf Pond Weed. Insect, including the Asian Long Horned Beetle and the Emerald Ash Borer can also cause serious problems.

Public education and management of invasive species are equally critical elements of a comprehensive plan aimed at protecting native species and their habitats, leading to healthier, fully-functioning ecosystems. The dollar cost to not properly managing invasive species can be quite high, as invasive species may impact commercial fisheries, agricultural operations, and more.

WHAT IS AN INVASIVE PLANT?

- The USDA Forest Service definition: An "**invasive species**" is defined as a species that is. non-native (or alien) to the ecosystem under consideration; and, whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
- The official State of CT definition of an invasive plant is part of a legal act. It is more detailed. See the listing criteria at <https://cipwg.uconn.edu/criteria-for-listing/>
- Evaluation of plants will continue. Other plants are sure to be added to the official Connecticut list in the future. If you observe a non-native plant that appears to be aggressive and spreading into areas outside of the garden, consider that it might become invasive and treat it with caution.

WHY SHOULD ONE BE CONCERNED ABOUT INVASIVE PLANTS?

Invasive plants are plants that are non-native and are able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems.

It isn't so much the presence of invasive plants but the absence of native plants that is the problem.

Invasive plants arrive in their new home without the checks and balances that kept them in control in their home ecosystem. Some cause actual damage in their new home, perhaps changing the soil chemistry or releasing chemicals that kill other plants, but for the most part, their major impact is from displacing the native plants that are food for native animals, especially insects. We have been slow to appreciate that most insects are specialty feeders, able to eat only one or a few kinds of plants, plants they evolved with over long periods of time. Most insects can't eat the alien plants. As far as food goes, the alien plants might as well be plastic.

We seldom notice the abundance of insects in the world around us. We do not see the 500 different kinds of caterpillars that feed on oak trees. But birds find them - those caterpillars are the primary source of food for baby birds as well as an important source of food for other animals. Fewer native plants, fewer caterpillars, fewer birds. That is just one example. Without the abundance and diversity of native plants there is no abundance and diversity of insects and other animals. Without our native plants, ecosystems are less complex. With fewer checks and balances, ecosystems are less stable. Animals, including ourselves, are dependent on complex stable ecosystems for our very existence.

INVASIVE PLANTS IN CONNECTICUT – a website full of information:

The official Connecticut Invasive Plant list provided by the Connecticut Invasive Plant Working Group at https://cipwg.uconn.edu/invasive_plant_list/ includes links to a large variety of useful information including:

- A list of all the plants legally determined to be invasive in Connecticut
- A link to the laws detailing the criteria for a plant to be designated as invasive
- Information for each plant specifying whether or not it is prohibited. It is against the law to import, move, sell, purchase, transplant, cultivate, or distribute the plants that are prohibited.
- Links to fact sheets and control sheets.
- Note: just because a plant is not on the list yet does not mean it is safe to grow. More plants will be added to the official list as data is collected. If you observe troubling behavior by a plant that is not native to our state, pay attention to those warning bells. Treat the plant with caution. Do NOT give it to your friends - or your enemies!

IDENTIFYING INVASIVE PLANTS:

- Use an app such as Seek, by iNaturalist, which can help identify plants using a cell phone camera.
- Try the links from the official Connecticut Invasive Plant List at https://cipwg.uconn.edu/invasive_plant_list/
- Try an on-line search for descriptions and photos.
- Still confused? Information about many confusing plants can be found in “Mistaken Identity? Invasive Plants and their Native Looks-Alikes”
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_024329.pdf
- “**Spotting Invasive Plants on our Roadsides**” is a continuing series with identification information for spotting common invasives along roadsides in our town in the season when they are easiest to identify. These pages are specific to New Milford. They include dates of the best time to spot common invasive plants and list some New Milford roads where the plants are found.

BurningBush:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_1_Burning_Bush.pdf

Norway Maple:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_2_Norway_maple.pdf

Spring Rush:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_3_the_spring_rush_or_leaves.pdf

Barberry:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_4_spring_barberry.pdf

Garlic Mustard:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_5_garlic_mustard_281%29.pdf

Honeysuckle:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_6_honeysuckle.pdf

Autumn Olive:

https://www.newmilford.org/filestorage/3088/3752/spotting_invasives_7_Autumn_Olive.pdf

Multiflora Rose:

https://www.newmilford.org/filestorage/3088/3752/Spotting_Invasives_8_Multiflora_Rose.pdf

COMMON INVASIVE PLANTS IN NEW MILFORD: The following is a list of some of the most common invasive plants in our area with notes. **Questions? Contact** Kathleen Nelson, knelson151@sbcglobal.com

HERBACEOUS PLANTS:

Garlic Mustard, *Alliaria petiolata*: A biennial, forming a basal clump of leaves the first year, then flowering, producing seeds, and dying the second year. It is easiest to pull when in flower in May. Dispose of flowering stems with your kitchen garbage. There is enough energy in the stems to allow seeds to ripen even after the plants are pulled – you don't want that happening in a compost pile. Persistence and timing can deal with this problem.

Japanese knotweed, *Polygonum cuspidatum*: One of the nastiest. See https://www.oldlyme-ct.gov/sites/g/files/vyhlf3616/f/uploads/nip_the_knotweed_handout.pdf for an organic method that some people are finding successful. Another method is covering the plants with heavy black plastic for an extended period of time – 2 years? More? Spraying with the appropriate chemical at the appropriate time by an experienced licensed professional is also successful.

Japanese Silt Grass, *Microstegium vimineum*: An annual grass, relatively new in the area and spreading quickly.

Mile-a-Minute Vine, *Persicaria perfoliata*: Found in several areas of New Milford and nearby towns, including, in New Milford, the Dorwin Hill area, near NMHS, Bridle Road, and Browns Forge Road. For control of MAM, use the methodology on the Mad Gardeners website, www.madgardeners.com. Check the article "mile-a-minute advice" on the home page. This method, which includes specific timing, was developed by the Mad Gardeners' Mile-a-Minute Control Project that managed MAM vine on over 100 properties in the New Milford area from 2007 to 2013. For more information about MAM, see <https://mam.uconn.edu/>.

Mugwort: *Artemisia vulgaris*: My choice for the worst invasive. Very hard to kill with chemicals. Try covering it with a lightproof layer(s) of black plastic for an extended period of time – 2 years? Maybe more. At least, prevent seeding by cutting it down late in the season just as it is going into flower.

Swallowwort: *Cynanchum louiseae* and *C. rossicum*: Not common in New Milford yet, but spreading aggressively where it is found. Very difficult to kill. Monarch butterflies, mistaking it for a native milkweed, lay eggs on it, but the plants are poisonous to monarch larvae.

WOODY VINES:

Oriental bittersweet, *Celastrus orbiculatus*: Learn to recognize the leaves. Pull seedlings. Roots are usually orange. Dig or pull adult plants when possible, or at least cut female vines to the ground every spring to prevent seeding. The female vines are the ones with the berries.

SHRUBS:

Autumn Olive, *Elaeagnus umbellata*, with red berries, and related Russian Olive, *E. angustifolia*, with yellowish berries. Leaves are attached alternately to the stem.

Barberry, *Berberis thunbergii* and *Berberis vulgaris*: Barberries have numerous small annoying spines, ordinary oval leaves. Bushes tend to be rounded, dense. Often found along roadsides and in quantity in young woodlands that were farmland several decades ago.

Honeysuckles, non-native species: *Lonicera japonica*, *L. maackii*, *L. morrowii*, *L. tatarica*, *L. X bella*, *L. xylosteum*. Ordinary oval leaves. Bushes tend to be upright, less dense. No thorns. Leaves are opposite, ie attached across from one another on the stem. Stems are hollow with brown spot in the center.

Multiflora Rose, *Rosa multiflora*: A shrub with long thorny stems that reach out to grab you. Learn to tell the difference between multiflora rose and bramble fruits such as raspberry. Leaves are compound with 7 or 9 leaflets. White flowers are very fragrant.

Winged Euonymus, AKA Burning Bush, *Euonymus alatus*. Easily recognized by the prominent “wings” on the bark. A common smaller-sized landscape cultivar and its escapees have less prominent wings. Easily spotted in fall by the brilliant red color.

TREES:

Norway Maple, *Acer platanoides*: A large maple tree often forming dense groves, killing almost everything else. Break a leaf in summer to see milky sap. Form with dark purple leaves is common in landscaping. Leaves turn bright yellow late in the fall after native maples have lost their leaves.

Tree of Heaven, *Ailanthus altissima*: smelly foliage. Suckers like mad. Very hard to kill.

CONTROL METHODS:

- **Rule Number One: Don't plant them.** I know, I am a gardener too – do **not** succumb to “But it is so pretty!” Do your research: google the name of the plant you want to buy, along with the word “invasive”. Usually – not always – that will provide a warning if a warning is needed.
- **Rule Number Two: Don't let them produce seeds!!!!**
- **Disposal:** Dispose of plants safely. Do NOT put invasive plants that may contain seeds, plants with viable roots or rhizomes, or plants that might root from stem cuttings into your compost pile. If the plants definitely do not have seeds, you can spread them on the driveway to dry, then put them in the compost when you are absolutely sure they are dead. When in doubt, bag the plants and dispose of them with the kitchen garbage.
- Plants that spread by underground stems: Plants need light to survive. If nothing else works, cover the offending plants with something lightproof such as an old carpet or two layers of landscape fabric. How long to cover will depend on the particular plant species. It will probably take at least two years to eliminate perennials that spread from underground stems. Sometimes, if you are very very careful and the offending plant is just a seedling you may be able to dig out all the bits of underground stem. Usually you will fail.
- Plants that spread by seed. Don't let them produce seeds! Cut them down, pull them out, or cover with a lightproof cover to kill the adult plants. Bag and safely dispose of plants that have seeds. Do NOT put the seeds of the offending plants in your compost pile.

- Learn to recognize seedlings. Pull them when they are tiny. It is amazing how many seedlings one can learn to identify when they are 2-6 inches high. Even tiny Burning Bush seedlings will be red in the fall. Barberries are easy, so is multiflora rose. Bittersweet leaves have a distinctive shape. When you pull them, check the roots – they are orange.
- Pull out shrubs and small trees by the roots. A weed wrench or similar tool can be helpful: <https://www.youtube.com/watch?v=TCHgHjAduwA>
- Herbicides: A last resort, to be used by people who know what they are doing – i.e. licensed pesticide applicators. Keep in mind that many of the most troublesome invasives are not easily killed even with the correct herbicide applied at the correct rate in the correct season by a licensed pesticide applicator. If you decide you want to apply herbicides yourself, be sure to carefully read the label. In my experience, once I've read the label I change my mind and decide to try another method.

CAN YOU HELP?

- **Reporting:** Please send reports to Kathleen Nelson, knelson151@sbcglobal.net. She will forward your report to the appropriate agency.
- **Report:** Mugwort infestations along roadsides. The New Milford Public Works Department will whenever possible mow roadsides that have mugwort in September to minimize seeding.
- **Report:** Japanese Knotweed along roadsides for possible control.
- **Report:** Roadsides with significant numbers of native shrubs. Native shrubs in identified areas will get special attention during brush clearing operations.
- **Report: Mile-a-Minute Vine:** <https://cipwg.uconn.edu/mile-a-minute/>. To report local infestations, or for on-site advice on MAM control, contact knelson151@sbcglobal.net
- **Japanese Knotweed control:** Some groups have had success with Japanese knotweed by cutting the stems of the knotweed to ground level in June, July, and August, then bagging the cut stems and disposing of them properly. For more information on this control method see <https://cipwg.uconn.edu/wp-content/uploads/sites/244/2016/10/PPT-PDF-Abby-Stokes-Petie-Reed-Session-3.pdf> or https://www.oldlyme-ct.gov/sites/g/files/vyh1if3616/f/uploads/nip_the_knotweed_handout.pdf
- **Learn to identify invasive plant seedlings and pull them while they are small.** It is easy to recognize burning bush seedlings in the fall when they are red. The leaves of Oriental bittersweet are easy to recognize with practice. If in doubt, check the roots after you pull: the bittersweet roots are orange, sometimes quite bright, other times dull. Norway maple seedlings are likely to be near adult Norway maples. To check Norway Maple identification, break a leaf or small stem during the growing season – Norway maples have a milky sap, our native maples have clear sap
- **Volunteer for Water Chestnut control:** Volunteers working mostly from kayaks and canoes pull Water Chestnut in the Still River, the Housatonic River, and the north end of Lake Lilinonah during the summer. Contact info@friendsofthelake.org

GENERAL INFORMATION:

- **Preventing the spread of Invasive Plant Species: Best Management practices** for movement of topsoil and gravel fill, mulch and equipment in Connecticut. <https://cipwg.uconn.edu/wp-content/uploads/sites/244/2020/08/CT-IPC-BMPs-for-topsoil-and-mulch-FINAL-Aug-2020.pdf>
- For advanced users: “Native and Naturalized Vascular Plants of Connecticut Checklist”, Memoirs of the Connecticut Botanical Society no 5, 2014. This publication lists all the vascular plants found in Connecticut. It is just a list, there are no descriptions. Warning: Species marked with a star (*) are NOT native to Connecticut. Available as a booklet, as an Excel file or as a pdf from <https://sites.google.com/a/conncoll.edu/vascular-plants-of-connecticut-checklist/home/files-for-download>

INVASIVE ANIMALS: The following is a small sampling of alien animals that are causing problems in our town.

- **Zebra Mussels** have been found in Candlewood Lake. The Candlewood Lake Authority is working hard to prevent the expansion of the population. <https://candlewoodlakeauthority.org/Zebra-Mussels>. Thorough cleaning of boats is critical in preventing the spread of Zebra Mussels and other aquatic invasive plants and animals. See <https://www.youtube.com/watch?v=JX8TmwTx-tU>. CLA is also offering workshops on boat cleaning.
- **“Jumping Worms”**, Asian earthworms (*Amyntus* species and others) have been spreading in our region. They are very active earthworms, living in the upper reaches of the topsoil, making the soil look recently rototilled, with the texture of coffee grounds. These worms can be a problem in gardens, but environmentalists are more concerned about their effect on forest ecosystems. So far nobody has found a way to control them. For more information, see <https://dnr.wisconsin.gov/topic/Invasives/fact/jumpingWorm.html>
- **Emerald Ash Borer** has killed many trees in our area the last couple of years. Dead ash trees with stripped bark are a common sight along New Milford roadsides. <https://portal.ct.gov/DEEP/Forestry/Forest-Protection/Emerald-Ash-Borer-EAB>
- **Asian Longhorned Beetle** – is it already in Connecticut? See <https://portal.ct.gov/DEEP/Forestry/Forest-Protection/Asian-Longhorned-Beetle>