

Invasive Plants in Massachusetts

Non- native plants continue to invade our ecosystems. They spread quickly, grow and mature fast. These invasive plants are hard to control and remove, crowding out the native plants in the area. They are a large threat to our environment and economy. The New England wild flower organization states, “Invasive plant species are among the greatest threats to the integrity of natural areas.”

Many of these invasive plants develop in wetlands. A wetland is an ecosystem that is temporarily or permanently filled with moisture. They function to help control flooding, and they filter and clean out storm water run off. Some examples of wetlands include swamps, marshes and bogs. They are extremely important to our environment and must be protected. Wetlands tend to be more vulnerable to invasions. It is said that “24% of the world’s most invasive plant species are wetland species.” (Kercher 431) “Many wetland invaders form monotypes, which change habitat structure, lower biodiversity, (both # and quality) alter nutrient cycling and productivity and transform food webs. They are landscape sinks that collect materials resulting from both terrestrial and wetland disturbances.” (Kercher 431) Since a lot of non – native species have no trouble in adapting in certain habitats, it is easy for them to live in these wetland areas.

One of the most common and threatening plants that invade wetlands is known as Purple Loosestrife (*Lythrum salicaria*). It grows 1.5 meters with purple flowers and a square shaped woody stem. A single plant can produced up to three million tiny seeds annually which are easily spread by wind and water. It spreads fast and forms thick patches which can disrupt water flow in rivers. This leads to negatively affecting the wildlife habitat in the wetland. Native species habitats are invaded by these purple flowered plants forcing the wetland to diminish. (APWG)



A submerged invasive plant known as the Eurasian Water Milfoil (*Myriophyllum Spicatum*) invades wetlands in Massachusetts. It has slender stems covered with feathery leaves and tiny flowers that are produced about the water surface.

The difference in this invasive is that it doesn't rely on seed reproduction. It reproduces by fragmentation and the shoots are carried downstream by water currents. We also have a big factor in spreading this invasive by things such as boats, motors, bait buckets, and live wells. They form a dense canopy which blocks sunlight for aquatic plants and animals. It can also inhibit recreational activities such as swimming, boating, and fishing. It is important to become aware of this type of invasive to help prevent further invasions. The public should know to remove all weed fragments from boats at landings. (APWG & PCA)



Invasive plant species also spread throughout our uplands. A common upland invasive plant is winged burning bush (*Euonymus alata*). The most noticeable feature of this bush is the wings along the branches. In the fall the leaves change from green to bright red and they produce red-orange colored fruit. It threatens different habitats including forests, fields by displacing native vegetation forming dense thickets. Underneath the bush hundreds of seeds drop forming what is known as a seed shadow. The plant continues to be used as an ornamental increasing the spread throughout the state. There are several options of native plants that can be used as an alternative to burning bush. Red chokeberry (*Aronia arbutifolia*) and Virginia sweetspire (*Itea virginica*) are two alternatives that provide both fruit and color. (APWG & PCA)



Another common upland invasive found in Massachusetts is Multiflora rose. This bush produces beautiful large flowers, making planting desirable for decoration purposes. The bush produces berries, which are eaten and dispersed by birds. An average plant produces on estimate one million seeds per year. Similar to burning bush it forms dense thickets that crowd native vegetation. The bush has thorns on it making it difficult to remove by hand. Cutting and

mowing is effective but must be done frequently. The common raspberry or flowering raspberry can be used as alternative plants. ([APWG & PCA](#))

A common deciduous woody perennial plant found in Massachusetts is known as Oriental Bittersweet. It grows as a climbing vine and a trailing shrub. The vine climbs over and covers vegetation. It is over taking and removing the Native American Bittersweet. There are two separate plants, the males do not produce fruit and the females do. It is commonly found in areas that are suffering from some kind of land disturbance. Manual, mechanical and chemical control methods are all effect in preventing the spread and killing of oriental bittersweet. There are several alternative plants that can be planted instead of this invasive. A few of these include trumpet honey suckle, passionflower vine, and American bittersweet. The American bittersweet must be planted in areas that oriental bittersweet has not been recognized or has been controlled, to prevent hybridization with the native species. (APWG & PCA)



There has been a discovery of a new invasive plant species in Massachusetts. It is known as the Mile-a Minute vine or the Devil's Tear-Thumb. The weed smothers native plants forcing them to die off. The vine has the ability to grow 6 inches per day stretching up to 23 feet. It is native to Asia but has appeared in New England within the last decade. Falmouth and Milton are the only towns with known infestations but it is important to be aware of this vine so that the public can help to control a further invasion in Massachusetts. The vine has triangular shaped leaves making it easy to identify. It prefers sunny areas with moist soil and has metallic blue berries that appear mid July until the first frost. We strongly urge you to contact the Conservation Commission in Franklin if you think you have seen this weed. This will allow us to stop the spread of the weed before it gets out of control. (Richardson 1)



Japanese Knotweed, looking similar to bamboo gets the name the killer bamboo. It can grow to be over 10 feet in height. It can tolerate a large variety of habitats including complete shade, warm temperatures, a large amount of salinity and drought. This is a hard plant to control because it has the ability to re-grow from vegetative pieces

as well as seeds. This plant strongly threatens riparian areas because it can survive floods. It will inhabit and spread throughout shores and islands where it will remain constant.



It is considered one of the worst exotics in the eastern part of the United States, and is found in 39 of the 50 states. The most effective control method for this plant is use of herbicides in late summer or fall. The roots must be killed because the plant quickly recovers from cutting by re-sprouting from the roots, which are deep under soil and hard to remove. Although invasive, Japanese knotweed has many uses. The flowers supply an important source of nectar for honeybees. The young stems are edible as a vegetable, and are considered a nutritional supplement. (IPANE)

An important issue in Massachusetts is that plants commonly mistaken as invasive species are poison ivy, oak and sumac. However, they are native to Massachusetts and should not be eliminated. These plants do cause a red itchy rash and may not be desirable but they are not invasive. It is important to let them grow in their natural habitat.

There are different control methods that can be used to remove and prevent the spread of these plants. The most appropriate method depends on the type of plant being removed. One method is mechanical removal of the plants. This includes hand pulling, tilling and mowing. The benefits of mechanical removal are you can select the plants you want to remove. It is a disadvantage because it is hard work and disturbs the surrounding area. Chemical control is another method in removing invasive plant species. This involves the use of herbicides usually glyphosate or triclopyr. This method is dangerous because it can affect the native species, and it has potential toxicity. It is also expensive and hard to schedule. Combining cutting and herbicides has also proven effective. Cutting the plant as far to the ground as possible and then spraying the stem with herbicide will kill the plant. The last method used for invasive species control is a biological control. This is the introduction of an herbivore or pathogen that will infest and kill off the invasive. This works well on areas have a large infestation however; it introduces a new exotic species to the area and brings danger towards native plants. There is a specific type of beetle that is commonly released to eat purple loose strife. If the invasive plant is in the buffer zone of a wetland you must obtain a permit from your local conservation commission before attempting to remove the plant (New England Wild Flower Society).



It is important to have knowledge of these threatening species because they will affect you if not controlled. Invasive plants can be vines, trees, shrubs, herbs, and aquatic. They can limit the land use now and in the future. They are extremely harmful to agriculture and crop / food production. Invasive plants will eradicate local populations of desirable animals such as songbirds, bees, and butterflies. Invasive species affect activities such as hunting, fishing, camping, hiking and boating. They can easily over populate home gardens and lawns causing a great deal of annoyance. The more this problem increases the more money we will have to spend to try to control it. We encourage the homeowners of Massachusetts to learn more about invasive species affecting our area, to ensure that they are not planting or growing any on their property. The more people become aware of these plants the better we have at preventing invasions.

