

Acton WildAware Beacon Article

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Commonly Encountered “Invasive Plants” in Acton

Many people are not aware that the greenery they may be passing by along the side of the road, woodlands, or wetlands are actually categorized by many plant and agriculture authorities to be “invasive.”

For example, as you drive around Acton, or even up to Maine on a major highway, you may notice thick, bamboo-like stalks with white flowers on top, growing in large stands along the edges and guardrails. This is commonly called Japanese Knotweed (*Polygonum cuspidatum* or *Fallopia japonica*). It may look lush and green, so you might not think there’s anything wrong with it. Growing in sun or shade, it’s tolerant of drought, high temperatures and high salinity levels. Knotweed grows along streams, riverbanks, in disturbed areas, roadsides and waste places. What’s the threat? It spreads underground by stem or root, as well as by seed, forming dense thickets and crowding out native plant communities. It has the ability to survive severe flooding. Once knotweed is established, it is extremely difficult to eradicate.

A similar story is repeated for the 66 other “invasive” or “likely invasive” plant species identified by the Massachusetts Invasive Plant Advisory Group (MIPAG <http://www.massnrc.org/mipag/index.htm>). Please note that “species” includes all synonyms, subspecies, varieties, forms and cultivars of that species unless proven otherwise by a process of scientific evaluation (*A Guide to Invasive Plants in Massachusetts*, Published by Massachusetts Division of Fisheries and Wildlife, Second Edition, Revised 2008).

Most introduced plants do not threaten native plant or animal communities at all. They naturalize and benefit our landscapes and gardens. Consider Acton’s apple orchards. Apple trees had grown in Europe and Asia for thousands of years and were brought to North America by colonists. Some non-native plants, however, spread rapidly in natural areas, especially when the ground has been disturbed by construction or logging. With the exception of direct physical habitat destruction, government agencies, conservation groups and horticultural organizations assert that these invasive species pose *the greatest* threat to the native biodiversity of Massachusetts. This is because the natural diversity of Massachusetts is composed of many inter-connected groups of indigenous plants, animals, fungi and microorganisms that have been moving around our landscape and adapting to the environment since the glaciers receded over 10,000 years ago. Once established, invasive plants do not have to contend with the animals or pathogens from their native homelands any more, allowing them to reproduce and spread rapidly. They shade-out natives and alter soil chemistry. Invasive plants contribute to the decline of 42% of our federally listed threatened and endangered species (Paul Somers, NHESP www.nhesp.org).

Take for example, garlic mustard (*Alliaria petiolata*). Each plant is capable of producing thousands of seeds, which may be dispersed by flooding, composting or wind and remain viable in the soil for years. It

threatens certain native butterfly species by out-completing the native mustard host plants they rely on for egg laying and larval feeding. It tolerates shade and dominates forest understory. Volunteers vigorously patrol the grounds of the Acton Arboretum each year and seek permission from abutters to pick and bag garlic mustard. If you have ever strolled along the wildflower trail at the Arboretum, the thousands of native wildflowers encountered would not be able to flourish in the presence of garlic mustard.

It is important for every resident to know what kind of plants are growing on his or her property. Most of our purchased plants were imported by well-meaning horticulturalists over the decades or centuries, who thought they would be appealing and useful. Many imported plants have been excellent additions to the landscape and our gardens. Others are now illegal, but they still persist on both private and public lands. Some invasives that were marketed widely have escaped and spread to now overpopulate woodlands, such as Japanese Barberry (*Berberis thunbergii* DC) and Burning Bush, aka Winged Euonymus (*Euonymus alatus*). If you hike Acton's conservation lands, you can find areas of understory completely dominated by them. Other frequently encountered invasive plants on Acton conservation lands are Oriental bittersweet (*Celastrus orbiculatus*), several types of Buckthorn (Glossy *Frangula alnus*, European *Ramnus cathartica*), Multi-flora rose (*Rosa multiflora*), and Japanese Honeysuckle (*Lonicera japonica*). Additionally in Acton are some invasive aquatic species (such as water chestnut (*Trapa natans*), various milfoils and fanworts) that can reduce water oxygen levels resulting in fish kills, and interfere with recreational activities.

It's important to learn the names of shrubs and trees growing on our lands. There are many effective methods for removing them, including pulling, cutting, digging or treating with appropriate herbicides according to manufacturer's instructions. It's a large and interesting topic that affects us all and our natural environs. Check out the publications and organizations listed below to learn more. The Acton Land Stewardship Committee (www.actontrails.org) welcomes and enlists volunteers to help out on conservation lands.

- A Guide to Invasive Plants in Massachusetts 2nd Edition (2008)
- The Massachusetts Prohibited Plant List from the Mass. Department of Agricultural Resources (MDAR)
- *Control of Nonnative Invasive Plants on Your Woodlot* by Roger Monthey, USDA Forest Service and Chris Mattrick, New England Wild Flower Society (NEWFS)
- The Sudbury-Assabet-Concord River Watershed CISMA (Cooperative Invasive Management Area) <http://www.cisma-suasco.org/>
- **Outsmart Invasive Species** App by Charles T. Barger. The Outsmart Invasive Species project is a collaboration between the University of Massachusetts Amherst, the Massachusetts Department of Conservation and Recreation (MA DCR) and the Center for Invasive Species and Ecosystem Health at the University of Georgia.

Paula Goodwin is a member of the Acton Conservation Commission who introduced WildAware with Acton Natural Resource Assistant Bettina Abe. WildAware is a program sponsored by the Town of Acton Natural Resources Department that began in September 2015. The purpose of WildAware is to educate the community about the existence and habits of wild creatures, and the goal is increased community awareness of shared habitats. For information, call 978-929-6634 or send email to nr@acton-ma.gov.