



## Yarmouth's Invasive Terrestrial Plant Initiative

Yarmouth, Maine

### Home Rules, Home Tools: Locally Led Conservation Achievements

Yarmouth is a small southern Maine town (just over 8,500 acres with nearly the same number of residents) with a diverse set of mostly small (<50 acres) town-owned parcels from coastal headlands and estuarine bays to rolling forested hills with small streams running through deep ravines. Its public lands encompass broad salt marshes, open meadows, and rolling lawns and forests along the Royal River, which runs through the center of town.

With ownership of this land also comes a significant responsibility for maintaining some fragment of the legacy of wildness that was once here for future generations of plants, animals, as well as for residents who seek open spaces for peace and recreation. One of Yarmouth's largest challenges is the slow but steady conversion of its native forests and wetlands ecosystems to degraded swaths on which invasive plants are the dominant life form. The worst offenders include Eurasian bittersweet, Morrow's honeysuckle, and smooth or common buckthorn.



Bittersweet is one of the most common invasives in southern Maine, often overgrowing trees.

Josh Royte, former chair of the town's conservation commission and now chair of its successor, the Parks and Lands Committee, first became aware of Yarmouth's bittersweet problem from his car window. Driving south of the Royal River he noticed bittersweet vines climbing up to tree tops, smothering the trees and causing extensive damage when the snow accumulates on



Yarmouth volunteers clear an old field of bittersweet.

the platform of vines bittersweet created over branches. The weight is enough to cause large limbs and mature trees to break apart and fall. In 1999 he was asked to help find an Eagle Scout project in one of the town's parks. A walk through Tinker Field on Cousins Island revealed that while a new trail would be (and now is) a great addition to the property, the biggest need was to save strangling trees and to free the stonewall that was all but lost under a tangle of invasive bittersweet.

As the town purchased additional properties, and as the conservation commission conducted site walks and collected baseline documentation on existing town lands, it discovered that all the parks had large amounts of common buckthorn as well, sometimes so thick it excluded the growth of native pines, firs, oaks, and maples. Other common invasive species in town include Japanese knotweed (also known as bamboo because of its hollow jointed stems), Japanese barberry, Morrow's honeysuckle, multiflora rose, autumn olive, and purple loosestrife. Acres of town property had an understory dominated with these invasives.

The first control step Yarmouth took was to try and educate residents about the types of

invasive species present in town and the impact they are having on the environment. Many invasive plant species are still sold as ornamental plants at garden centers. Others are transplanted from other areas because of their beautiful flowers or fruits that got some of these plants introduced in the first place. Unless people are alerted to the kinds of plants that are causing the problem, long-term success can be very elusive. The other step they took was to assess the degree to which these plants were present in their parks or open space properties.



Yarmouth, Maine

## Home Rules, Home Tools: Locally Led Conservation Achievements

The conservation commission also developed interpretive signs pointing out the areas where invasives are present and including photographs and descriptions of the offending plants in the town's open space guide ([www.yarmouthcommunityservices.org/spaces](http://www.yarmouthcommunityservices.org/spaces)) in an effort to make residents more aware of them.

The third step was to prioritize the properties needing attention based on where important resources are most at risk and, in the case of private properties, where there are willing partners. A comprehensive plan for invasive species management and prioritization will be developed for Yarmouth as management plans for properties are completed, each with maps showing areas with invasives species and their juxtaposition to other significant natural and recreational resources.

The fourth action is, of course, getting out and killing or removing invasives in those priority areas. Yarmouth has used a combination of community service workdays, volunteer and summer intern stewardship projects through a local grant funded summer invasives position, as well as use of Parks Department staff who put in many hours trimming vines from trees and bush-hogging fields that were completely dominated by bittersweet. Yarmouth also hired contractors, such as Lucas Tree, to combat invasives and win back its parks for public enjoyment and wildlife. However, this latter strategy is very time consuming and expensive.

Control of invasives species is a difficult and an ongoing battle. Just when they've been eradicated in one area, they show up in another close by, and then re-emerge years later at the original area.

If physical removal of these plants does not keep up with their spread, the town may opt for more serious measures including the application of herbicides using a licensed applicator under strict controls for reducing drift to non-target areas such as those with native plants, areas near water sources, wetlands, significant wildlife habitat, or places where pets and children are near. So far, such chemical controls have been avoided.

## How to protect your town's investment in land and water

The most important lesson is to learn which of Maine's plant species are invasive and to inspect your properties to see if they are infested. For help in recognizing these plants, Maine has some great resources through these websites:

[www.maine.gov/doc/nrimc/mnap/features/invasives.htm](http://www.maine.gov/doc/nrimc/mnap/features/invasives.htm)

[www.state.me.us/dep/blwq/topic/invasives/index.htm](http://www.state.me.us/dep/blwq/topic/invasives/index.htm)

<http://umaine.edu/publications/2536e/>

If you have water bodies in your town, you should learn to identify aquatic invasive plants and perhaps already have a lake volunteer group checking boat ramps for potential new arrivals. We are fortunate in Maine to have a great program already in place for aquatic invasive species.

Get volunteers to learn to identify these plants in your town and begin to map out where they are and what places are the most threatened by their spread. If you need some in-person help identifying invasive plants, contact your local county USDA Natural Resources Conservation Service, USDA Soil and Water Conservation District, or Cooperative Extension.

After getting an idea of the scope (geographic extent) and severity of your invasive species problem, you may want to develop a plan for each property or a town-wide plan. Include town staff (parks department, public works, code enforcement, etc.) to help with prioritizing needs and developing work plans. Even projects with volunteers often need the help of town equipment, trucks, and perhaps permitting. Any removal of vegetation in the Shoreland Zone should be done with Code Enforcement Officer notice and approval to ensure work doesn't harm the shore by increasing erosion potential or harming native species.

Once you have identified the priority areas for eradication or control measures and have a cadre of willing workers, start with mechanical removal, pulling small shrubs and seedlings, cutting vines from trees, digging up larger shrubs or ripping them from the ground using tools like a weed wrench.

And last but not least, remember that this work is never done: you must remain constantly vigilant for new or reoccurring infestations of invasive plants.

*“ With increased world trade and worldwide travel by people, biological organisms are introduced into new countries and regions at a higher rate than ever before. These introductions occur either intentionally or accidentally. In their new environments, biological organisms can become invasive because of lack of natural constraints that often exist in their origin range. The non-native invasive species disrupt agriculture and forestry, alter ecosystems, transmit diseases, and interfere with fishing, shipping, and other commerce activities. The economic and environmental damage from alien plants, animals, and microbes in the United States, British Isles, Australia, New Zealand, South Africa, India, and Brazil, account for more than \$300 billion per year in damages and control costs ”*

### **Biological Invasions:**

*Economic and Environmental Costs of Alien Plant and Animal Species –*

David Pimentel, ed. CRC Press, New York, NY. 2002

### **For more information, contact:**

Josh Royte  
Yarmouth Parks & Lands Commission  
207-846-0643