

Managing invasive plants in the Maine woods

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“So how did we do?” asked the contractor. I was de-briefing him after a monitoring visit to a state-owned forest, where he had treated invasive shrubby honeysuckle, Japanese barberry, autumn olive, and other invasive plants the year before.

“Well, pretty good,” I replied. The foliar herbicide treatment had been very effective on isolated shrubs, but there were some areas where the shrubs were so dense that the treatment could not possibly have covered all the leaves, and those plants were re-sprouting. “The interns and I did some aggressive cutting back on the shrubs that were still alive. We’ll go back next summer and cut them back again, and hopefully that will do the trick.”

The land we were discussing is the ~155-acre Baxter Forest owned by the State of Maine in the town of Topsham. Our goal is to suppress and contain invasive plant infestations to allow for good tree regeneration and native understory plant growth in conjunction with a recent timber harvest. Dense thickets of shrubby honeysuckles (*Lonicera* spp.) and Japanese barberry (*Berberis thunbergii*) had grown in under an old pine plantation in one section of the property, and isolated plants were creeping into the mixed hardwood forest in other areas.

All of the infestations had previously been mapped in [iMapInvasives](#) by an AmeriCorps volunteer, allowing the contractor to easily see which plants were present, where to target his work, and how dense the plants were in the different areas of the property. Now it was my turn to enter our mechanical treatments and monitoring survey, noting which areas of plants were dead, versus which were re-sprouting, and marking the latter for follow-up next year.

The State of Maine owns about 630,000 acres of Public Lands, which are managed for multiple uses including timber and recreation (these are separate from State Parks, which are managed primarily for recreation). Many of the Public Lands are located in remote northern, western, or eastern Maine, and these areas do not tend to be badly infested with invasive plants. With our colleagues at the Maine Department of Agriculture, Conservation and Forestry - Bureau of Parks and Lands, we at the Maine Natural Areas Program work to identify infestations, get them mapped in iMapInvasives, and recommend treatment strategies and priorities. In some cases, we follow up to help treat the infestations, sometimes in conjunction with private contractors hired by Parks and Lands.

The Topsham forest property is an unusual Public Land because it is in a more developed area of the state. We were not surprised to find advanced infestations there, given the landscape context of suburban houses and farmland. Such areas often have intense invasive plant propagule pressure from seeds carried by birds from neighboring properties, or seeds or plant fragments riding floodwaters along streams and rivers. Human recreation or dumping can also bring in unwanted plants, as can equipment used to build access points or roads, or to harvest timber.

Nevertheless, the Topsham property provides important habitat for native plants and animals in a somewhat fragmented landscape. It abuts and buffers Merrymeeting Bay, an important area in the

state with freshwater tidal marshes that support rare sturgeon, rare marsh plants, a threatened freshwater mussel species, and birds such as bald eagles, osprey, and many species of waterfowl. Removing invasive plants can make the forest more resilient to other stressors such as rising temperatures, invasive and native insects, and more frequent intense windstorms.

By using iMapInvasives, we make data on invasive plant presence available to our partners in Parks and Lands, allowing for collaborative management of these important habitats. When plans were made for timber harvest, everyone agreed that treating the invasive plants before the harvest was a top priority. We continue working together to follow up the treatments and ensure we reach our goals for native plant growth.

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Dense thickets of shrubby honeysuckles in the understory of the pine plantation.



AmeriCorps member and student intern hard at work cutting back re-sprouting invasive plants one year after the herbicide treatment.