

## Top Invasive Plant Species in Northeast Ohio



COMMON REED GRASS

BURNING BUSH

LESSER CELANDINE

EURASIAN HONEYSUCKLE

HYBRID CATTAIL

### The History:

J. Arthur Herrick Fen Preserve is one of the last remaining boreal fens in Ohio. A fen is a wetland characterized by cold, alkaline, mineral rich springs and spongy layers of organic matter called peat. At Herrick Fen, numerous springs flow from low gravel hills formed by glaciers during the last ice age, 10,000-12,000 years ago. The unusual water chemistry in the springs encourages the growth of sedges and plants more common in more northern climates. The preserve supports Tamarack, the only native conifer tree in Ohio that sheds its needles each year, as well as one of only three locations of Northern Bayberry, a distinctive shrub with waxy white berries.



### Conservation Efforts:



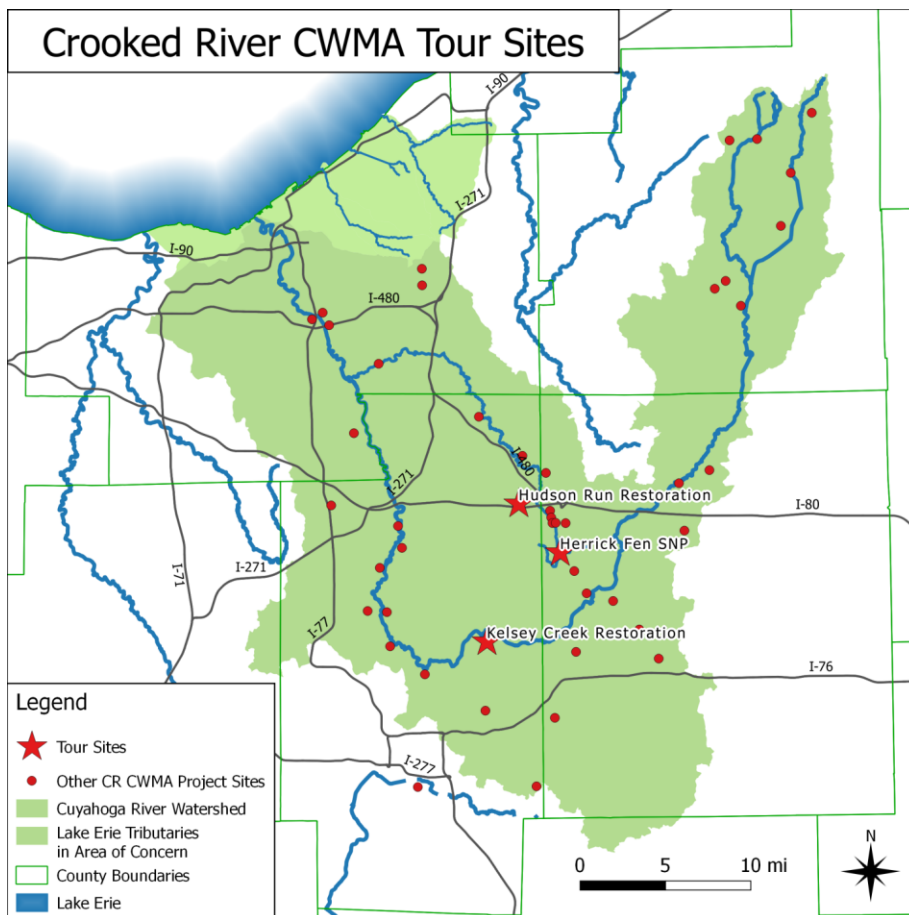
Herrick Fen is jointly owned by The Nature Conservancy and Kent State University, and The Nature Conservancy manages it as a dedicated state nature preserve. This 140-acre preserve remains threatened by urban encroachment, siltation, and invasive plant species like buckthorn, cattail, and reed canary grass. Efforts have been underway over the last decade to remove an old dam and restore the preserve's hydrology. The ecological goal for this preserve is to restore and maintain the biodiversity of the fens through aggressive invasive species control and hydrologic restoration.

### Invasive Plant Control Techniques and Equipment Used at Herrick Fen:

- Cattails cut and herbicide applied immediately to cut surface. This technique is much more labor intensive than foliar spray, so it was employed only in high-quality fen area with rare species. 10% aquatic-safe glyphosate-based herbicide with tracker dye. Note: Non-woody plants (such as cattails) require a much lower concentration of herbicide than woody plants for cut stump application.
- Foliar sprayed non-woody plants (and any small shrubs intermixed with non-woody plants). Used backpack sprayers for isolated plants outside high-quality fen area, and for small patches (a few feet wide). Used 25-gallon power sprayer mounted on amphibious ATV (Argo) for large patches (tens to hundreds of feet wide).
- Herbicide: 1.5-3% aquatic-safe glyphosate-based herbicide, with aquatic-safe surfactant (spreader/sticker), and spray tracker dye. Cut-stump and backpack spray used 69oz and Argo power sprayer treatment used 460oz for a total of 529 oz of concentrated glyphosate-based herbicide used.
- Time: Over the course of five days (two days in 2014, two days in 2015 and one day in 2016), between three and nine staff spent 25 hours on site for a total of 161 person-hours.
- Equipment: Backpack sprayers, folding hand saws, hand pruners, loppers, 25-gallon power sprayer mounted on amphibious ATV.

### Species Controlled at Herrick Fen:

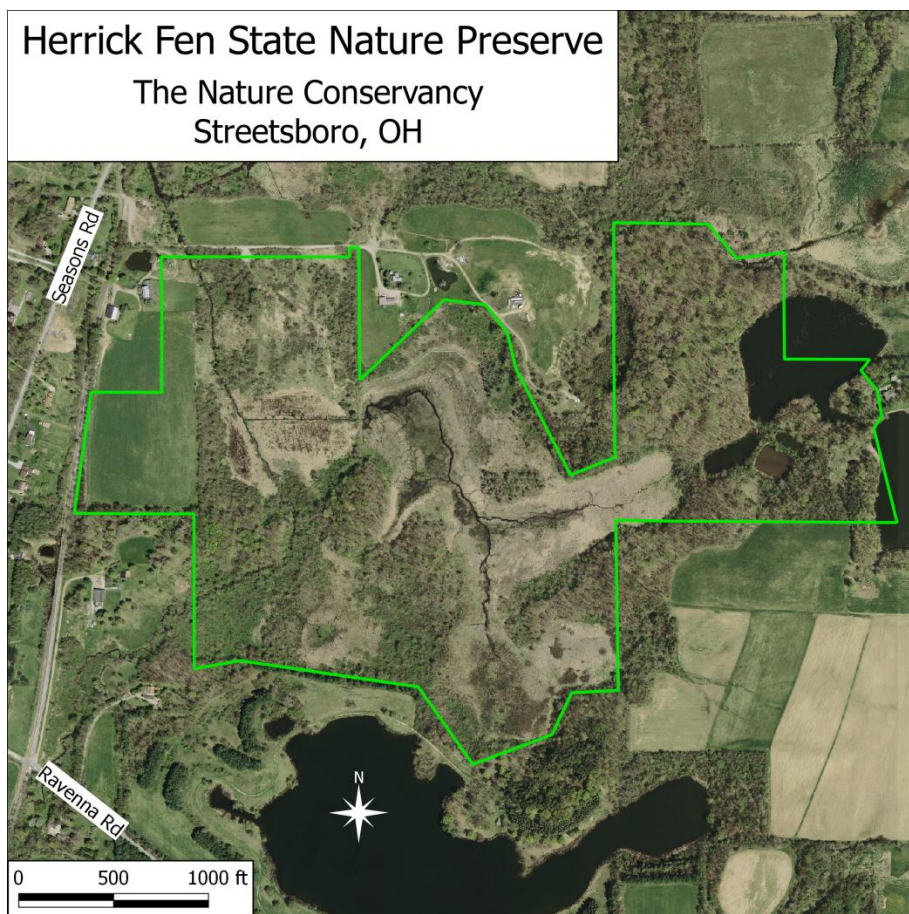
Common Name	Scientific Name	Common Name	Scientific Name
Canada thistle	<i>Cirsium arvense</i>	Reed canarygrass	<i>Phalaris arundinacea</i>
Common teasel	<i>Dipsacus fullonum</i>	Common reed, "Phrag"	<i>Phragmites australis</i>
Glossy Buckthorn	<i>Frangula alnus (Rhamnus frangula)</i>	Multiflora rose	<i>Rosa multiflora</i>
Purple loosestrife	<i>Lythrum salicaria</i>	Narrow-leaved cattail	<i>Typha angustifolia</i>



## About CR CRMA:

The Crooked River Cooperative Weed Management Area (CR CWMA) is a collaboration of major land stewards and other landowners in the Cuyahoga River watershed of the Lake Erie basin, all motivated by conservation of land and biological diversity in Northeast Ohio.

The purpose of CWMA is to share knowledge, staff, equipment, and material across jurisdictional boundaries for invasive species detection and management. Each CWMA is organized around geography and one or more species. The CWMA is based on a Memorandum of Understanding (MOU) among the partners.



In the Cuyahoga Watershed, several agencies have hosted seasonal crews working with land managers across the watershed. We share some large and small equipment, and we have a mobile tool cache of equipment and supplies for crews or volunteer projects.

Participation in the Crooked River CWMA takes many forms. There are two types of signatories to our Memorandum of Understanding, depending on how deeply involved in land management a participating agency or landowner is. We also have a Steering Committee to assist with work plans, community projects, and outreach.