



Blue Owl Hollow

Janell K. Baran, owner

6000 Porter Rd NE

Newark, OH 43055

740-345-4689

<http://www.blueowlgarden.com/>

Plant Marauders of Field and Forest: Invasive Species to Know and Control

OEFFA Conference Workshop Feb 17, 2023

Description:

- What is a WEED?
- What makes a weed an INVASIVE weed?

Learn to identify and understand several of Ohio's most common plant invasives and then join me in exploring alternative -- and sometimes unexpected -- ways to combat them without the use of toxic herbicides.

Definitions:

- Weed: any plant growing where you don't want it to be growing
- Invasive plant: any plant that is growing where you don't want it... to the extent that it's crowding out other plants and disrupting the proper functioning of the overall ecosystem around it











Manage Japanese Barberry to Keep Tick Levels Low, Reduce Lyme Risk

Entomology Today



Japanese barberry (*Berberis thunbergii*) is an invasive shrub that can blanket forest floors, as shown above near Lyme, Connecticut, in April 2010. The ground cover creates a humid microclimate conducive to tick proliferation. (Photo originally published in [Williams et al.](#), *Environmental Entomology*, September 2017)

A long-term study of managing Japanese barberry (*Berberis thunbergii*) shows that clearing the invasive shrub from a wooded area once can lead to a significant reduction in abundance of blacklegged ticks (*Ixodes scapularis*) for as long as six years.

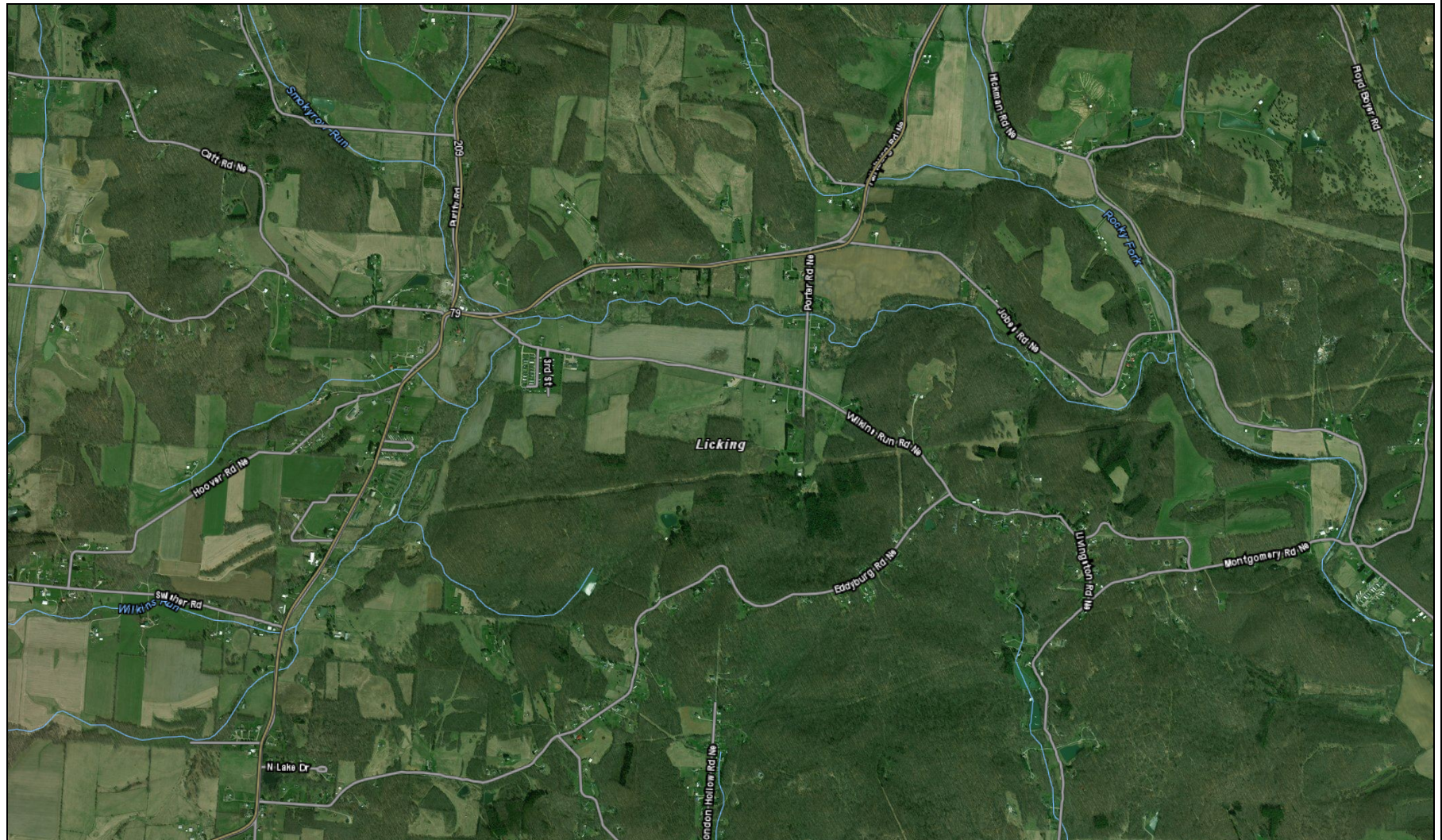
[Published last week in *Environmental Entomology*](#), the new research follows up on previous findings of the relationship between Japanese barberry and ticks and details the long-term impact that effective management of the plant can have on the Lyme-disease vector. However, the research team led by Scott C. Williams, Ph.D., at the Connecticut Agricultural Experiment Station, recommend returning to clear Japanese barberry roughly every five years, as their study showed an eventual rebound in barberry and tick





Area of Interest Interactive Map

View Extent
 Scale



INVASIVE PLANTS BANNED ON OHIO

The following plants are considered invasive in the State of Ohio effective January 7, 2018 except as otherwise noted:

<i>Ailanthus altissima</i> , tree-of-heaven	<i>Lonicera tatarica</i> , tatarian honeysuckle
<i>Alliaria petiolata</i> , garlic mustard	<i>Lythrum salicaria</i> , purple loosestrife
<i>Berberis vulgaris</i> , common barberry	<i>Lythrum virgatum</i> , European wand loosestrife (effective January 7, 2019)
<i>Butomus umbellatus</i> , flowering rush	<i>Microstegium vimineum</i> , Japanese stiltgrass
<i>Celastrus orbiculatus</i> , Oriental bittersweet	<i>Myriophyllum aquaticum</i> , parrotfeather
<i>Centaurea stoebe</i> ssp. <i>micranthos</i> , spotted knapweed	<i>Myriophyllum spicatum</i> , Eurasian water-milfoil
<i>Dipsacus fullonum</i> , common teasel	<i>Nymphoides peltata</i> , yellow floating heart
<i>Dipsacus laciniatus</i> , cutleaf teasel	<i>Phragmites australis</i> , common reed
<i>Egeria densa</i> , Brazilian elodea	<i>Potamogeton crispus</i> , curly-leaved pondweed
<i>Elaeagnus angustifolia</i> , Russian olive	<i>Pueraria montana</i> var. <i>lobata</i> , kudzu
<i>Elaeagnus umbellata</i> , autumn olive	<i>Pyrus calleryana</i> , Callery pear (effective January 7, 2023)
<i>Epilobium hirsutum</i> ; hairy willow herb	<i>Ranunculus ficaria</i> , fig buttercup, lesser celandine
<i>Frangula alnus</i> (syn. <i>Rhamnus frangula</i>), glossy buckthorn	<i>Rhamnus cathartica</i> , European buckthorn
<i>Heracleum mantegazzianum</i> , giant hogweed	<i>Rosa multiflora</i> , multiflora rose
<i>Hesperis matronlis</i> , dame's rocket	<i>Trapa natans</i> , water chestnut
<i>Hydrilla verticillata</i> , hydrilla	<i>Typha angustifolia</i> , narrow-leaved cattail
<i>Hydrocharis morsus-ranae</i> , European frog-bit	<i>Typha x glauca</i> , hybrid cattail
<i>Lonicera japonica</i> , Japanese honeysuckle	<i>Vincetoxicum nigrum</i> , black dog-strangling vine, black swallowwort
<i>Lonicera maackii</i> , amur honeysuckle	
<i>Lonicera morrowii</i> , Morrow's honeysuckle	







Japanese barberry

Berberis thunbergii

Japanese barberry is native to Japan, and was introduced to the United States in the late 1800s as an ornamental plant. It is used widely as landscape material, due in part to its resistance to deer browsing. Where deer numbers are high, palatable native species are replaced by barberry. It thrives both in full sun and deep shade. Like many non-native shrubs, it leafs out early, retains its leaves late into fall and forms dense thickets, shading out native plants.

Japanese barberry benefits from high nitrogen availability. It appears to have a complex relationship with non-native earthworms, which are associated with increased soil nitrification and break down litter rapidly. On sites where barberry is controlled, earthworm densities are reduced.

Recently, barberry has been implicated in the spread of Lyme disease. Researchers have noted higher densities of adult deer ticks and white-footed deer mice under barberry than under native shrubs. Deer mice, the larval host, have higher levels of larval tick infestation and more of the adult ticks are infected with Lyme disease. When barberry is controlled, fewer mice and ticks are present and infection rates drop.



Steve Manning, Invasive Plant Control, Bugwood.org

Identification

Habit:

Japanese barberry is a spiny, deciduous shrub, with arching branches. Typically, it is about 0.6 - 0.9m (2-3 ft) tall, although it can reach 1.8m (6 ft) in height.

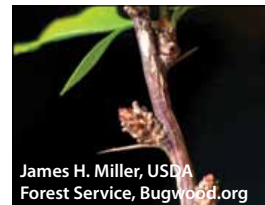
Leaves:

Japanese barberry has small oval to spoon shaped leaves with smooth margins. They are arranged in clusters along the stem and turn red in fall. Cultivars are available in chartreuse and burgundy. While many cultivars do not produce flowers or fruit, burgundy leaved plants have begun to appear in woodlands.



James H. Miller, USDA Forest Service, Bugwood.org

Bark/Stems:



James H. Miller, USDA Forest Service, Bugwood.org

Barberry's arching stems are deeply grooved, with single spines at each node. Its twigs and young stems turn reddish brown in winter and the older stems are gray. The inner bark and wood are yellow.

Flowers:



Leslie J. Mehrhoff, University of Connecticut

Japanese barberry has tiny, pale yellow, dangling flowers with six petal-like sepals and 6 smaller petals. They hang singly or in clusters of 2 to 4 blossoms from the nodes. They are insect pollinated and bloom in April and May.

Fruits/Seeds:

Barberry fruits are small, bright red, egg-shaped berries with dry flesh that are about 1 cm (0.4 in) long. They ripen in midsummer but remain on stems into winter. Fruits are dispersed by deer and birds.



Richard Old, XID Services, Inc., Bugwood.org

Habitat:

Japanese barberry tolerates a wide range of soil and moisture conditions and is extremely shade tolerant. It is found along woodland edges, roadsides, stream banks, old fields and forests. It may be more common and abundant in forests that were pastured or farmed in the past.

























Handwritten label on the rust-colored skein.

H. S. S. S. S.
S. S. S. S. S.
#2 3/18
Aluminum
2016-10-18

Cayenne 100
wool











PLAN OF CONSERVATION OPERATIONS

The District will carry out those things specifically noted, otherwise the cooperator will furnish necessary materials, equipment and labor and carry out all provisions of the plan.

Cropland

Field 4

7.0 Acres

This field will be used for meadow and garden crops.

Lime will be applied at the rate of 3 tons per acre and an additional 2 tons per acre every 5-6 years thereafter.

Fertilizer will be applied as follows:

- Corn - 300 lbs. per acre of 3-12-12 or 4-12-8
- Wheat - 500 lbs. per acre of 3-12-12, 4-12-8 or 2-12-6, if other two aren't available
- Meadow - 400 lbs. per acre of 0-20-10, 0-20-20 starting with the first year after seeding and every two years thereafter
- Garden - Manure plus 500 lbs. of 5-10-10 per acre

Woodland

Fields 1, 5 and 6

88.0 Acres

This area will be protected from fire and grazing and the open areas will continue to be planted to trees. They will be set to black locust, red pine, white pine, and tulip poplar. A multiflora rose fence will be planted along the old fence line between field 4 and 5; it will serve as a fence and for wildlife cover and food. Tulip plantings will be confined to more fertile protected areas.

Contour furrows, six feet apart should be plowed in the fall on fields to be planted the following spring. The trees will be set six feet apart in the furrow ridge. If furrows are not made, an area 18" x 18" should be scalped clean before planting each tree.

As fire is always a hazard and as the unbroken area of trees increases it will be necessary to provide fire lanes. A width of at least 15-20 feet should be kept clear. The size of the area surrounded by these lanes should be approximately 5 acres.

Open areas in field 5 will be planted to pine. Field 1 will be planted to black locust. Open areas of more than 200 sq. ft. at the tops of the trees in field 6 may be planted to tulip.

The District will furnish the first 1000 trees and one-half of the remainder insofar as supplies will permit.





