

Japanese barberry (*Berberis thunbergii*) ***IDENTIFICATION***



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Japanese barberry

A great urban shrub

- Compact low maintenance shrub
 - Tolerates drought, clay soil, deer
- Can plant in a wide range of environments
 - Full sun to shade
- Key traits
 - Fall color, persistent red fruit
- BUT.....



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Japanese barberry

A highly invasive plant in forests

- Can dominate forest understories
- Displaces native plants/animals
- Difficult to penetrate thickets
 - Recreation
- Supports ticks and lyme disease



Japanese barberry

Stem characteristics

- Compact shrub
 - Round with many dense, spiny stems
- Stems grow in a zig-zag form
 - reddish-brown
 - deeply grooved
 - single sharp spine at each node



Japanese barberry leaf characteristics

- Small, spatula shaped leaves
 - Alternate 0.5-1.5" long
 - Color varies
 - Leaves are arranged in clusters above a spine.



Japanese barberry

Flower/Fruit characteristics

- Yellow flowers (mid-spring)
 - umbrella-shaped, 0.25" wide with 6 petals.
 - Found along the stem individually or in clusters of 2-4.
- Bright red oblong fruit
 - 0.3" long
 - Fruit mature in mid-summer and can persist through winter.



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Form of Japanese barberry can look different in the natural areas

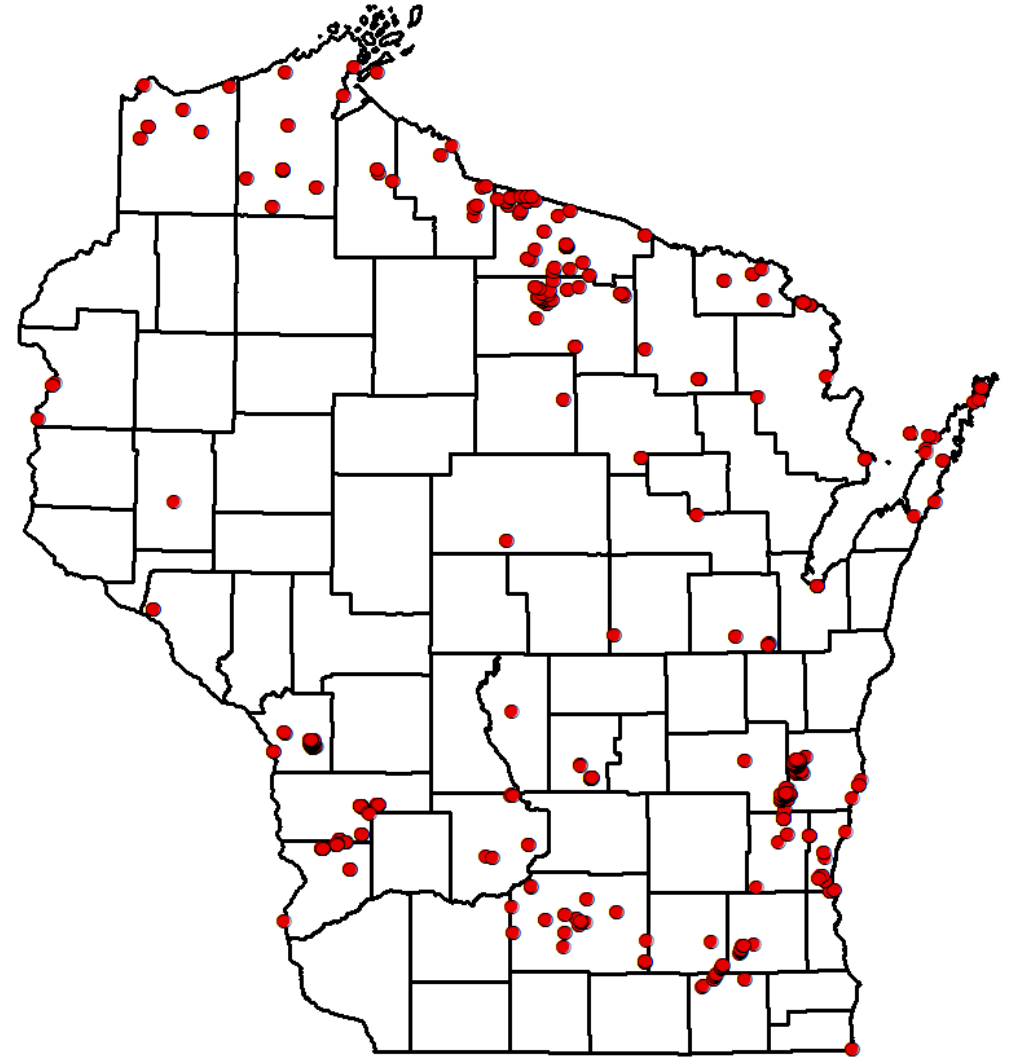
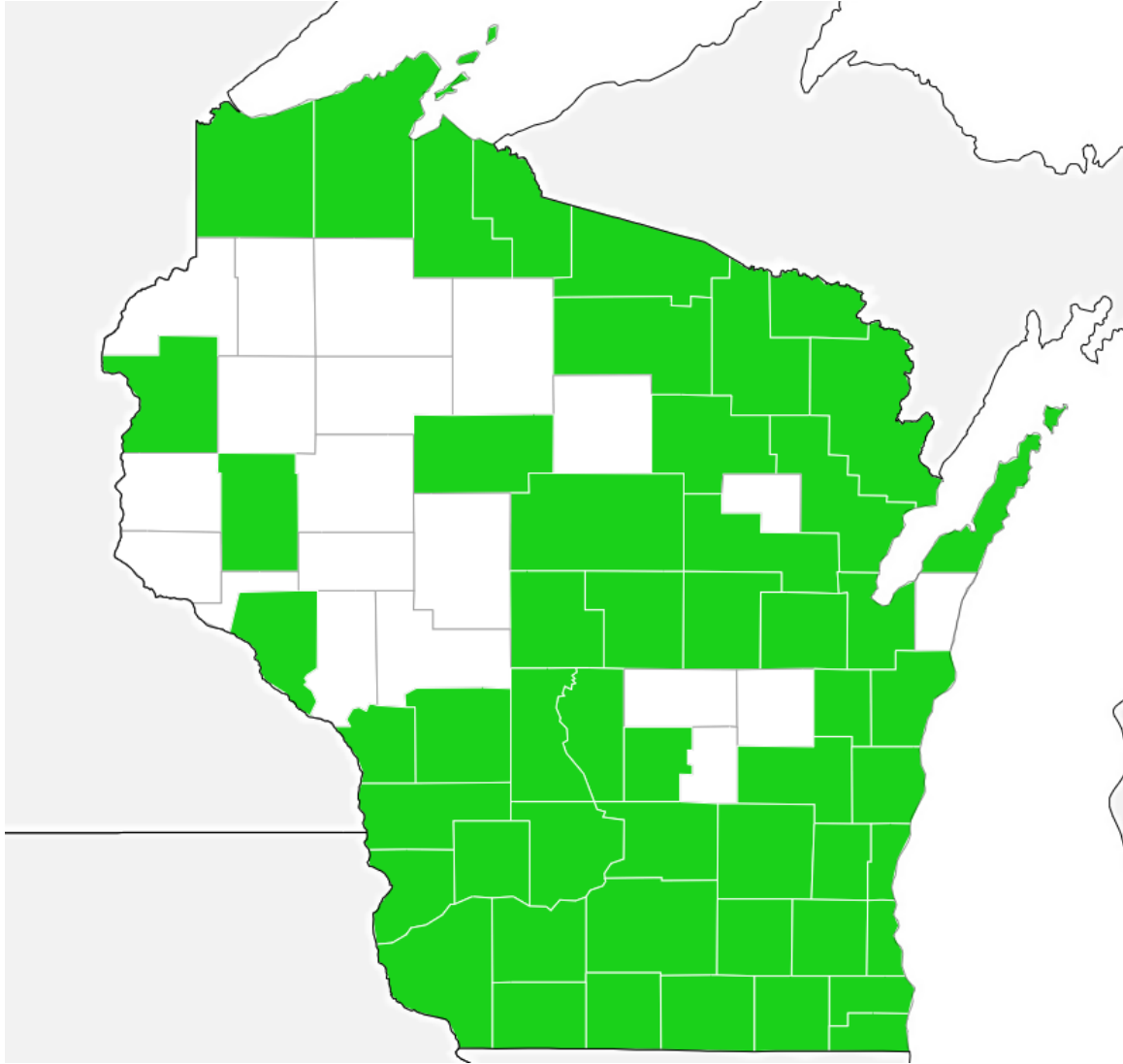


It can get dense in forest understories



Japanese barberry known infestations in Wisconsin

April 2018



Similar Species

- European barberry (*Berberis vulgaris*)
 - sharply toothed leaf margins
 - Japanese barberry no teeth on margin
 - 3- pronged spines lining the branches.
 - Japanese barberry has 1 spine
 - Taller than Japanese barberry with more loosely arranged branches



Will Japanese barberry continue to spread?

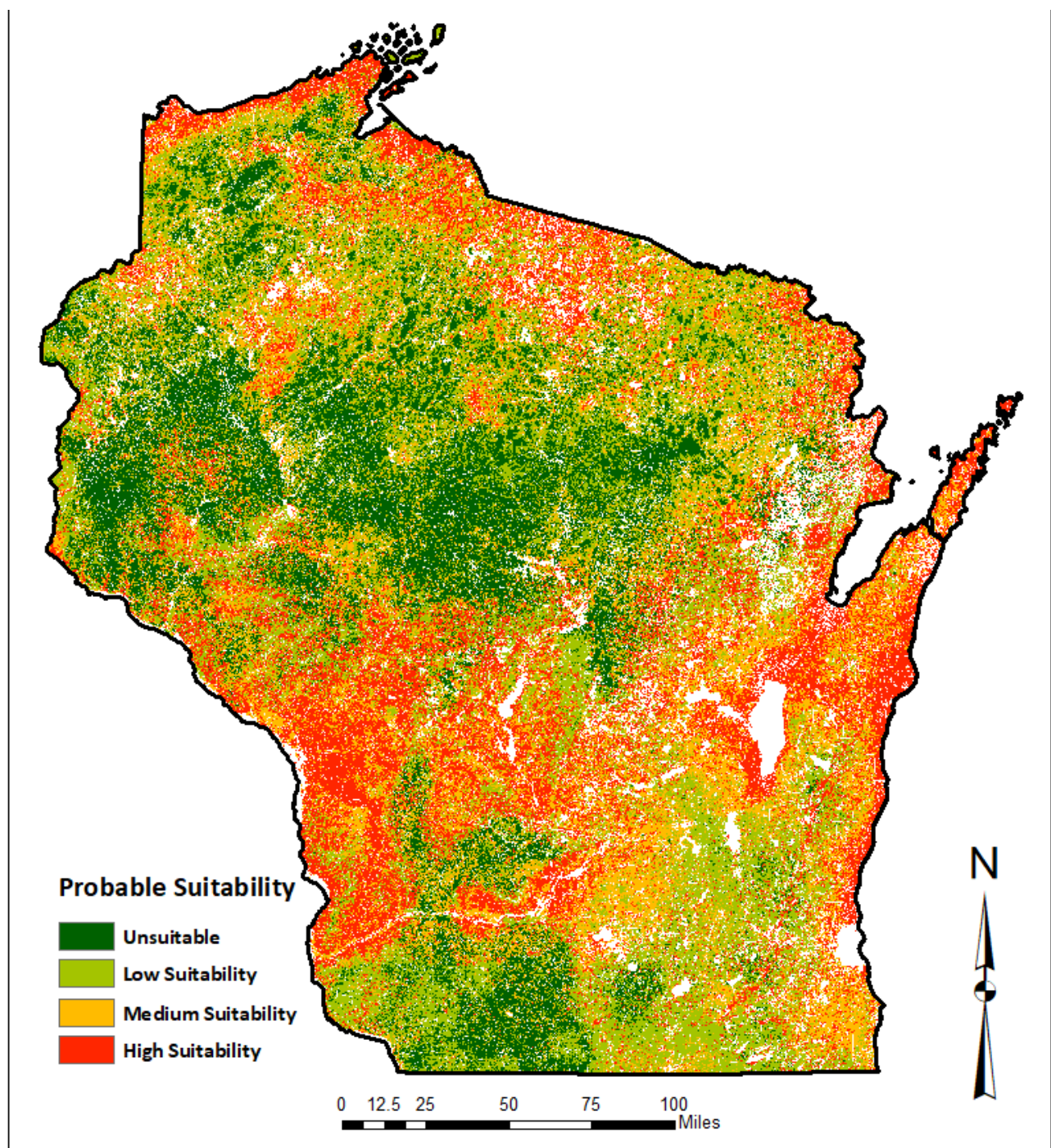
- Suitable habitats in WI

- Forests: 64%
- Urban: 58%
- Wetlands: 42%
- Barrens: 38%
- Agriculture: 34%
- Shrublands: 30%
- Grasslands: 28%

SHADE

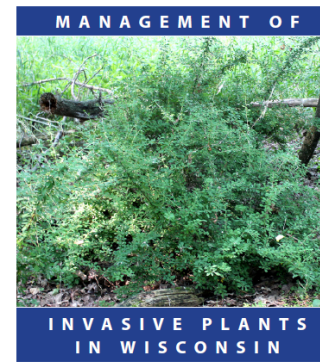


FULL SUN



Japanese barberry summary

- Common ornamental shrub invading forests understories
 - Displaces native plants and animals
 - Increases ticks and Lyme disease
- Report infestations to prevent further spread!
 - Great Lakes Early Detection Network, EddMapS, Local expert
- Manage new infestations to prevent impact
 - UWEX factsheet



Brendon Panke and Mark Renz

Invasive plants can thrive and aggressively spread beyond their natural range, disrupting ecosystems. The *Management of Invasive Plants in Wisconsin* series explains how to identify invasive plants and provides common management options. Management methods recommend specific timings for treatment, as well as expected effectiveness.



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Japanese barberry (*Berberis thunbergii*)

Japanese barberry is a round, dense, spiny shrub, typically 2–3' tall, though it may grow up to 6' tall and 6' wide. The branches are reddish brown and deeply grooved with a single, sharp spine at each node. The wood beneath the bark is yellow. It spreads vegetatively through branches that root freely when they touch the ground.

Legal classification in Wisconsin:

All wild plants are restricted. Select varieties/hybrids are also restricted. Consult Wisconsin's invasive species rule (NR 40) for details.

Leaves: Alternate, 0.5–1.5" long, entire, and shaped like a spatula with a narrow base and wide end (spatulate). Color varies depending on the cultivar, but includes green, bluish-green, or dark reddish-purple. Leaves are arranged in clusters above a spine.

Flowers: Mid-spring. Yellow, umbrella-shaped, 0.25" across with 6 petals. Flowers are found along the stem individually or in clusters of 2–4.

Fruits and seeds: Bright-red, oblong berries, 0.3" long. Fruit are found on narrow stalks along the stem individually or in clusters of 2–4. Fruit mature in mid-summer and can persist on shrub into winter.

Roots: Shallow root system. When scratched, the inner layer of the root is yellow.



Similar species: European barberry (*Berberis vulgaris*) is another introduced species that is sometimes invasive. European barberry spines occur in sets of 3, while Japanese barberry spines occur singly.

Ecological threat:

- Invades open and closed canopy forests, woodlands, oak savannas, wetlands, pasture, and meadows. Grows more vigorously on well-drained soils.
- Seeds are readily dispersed by birds.
- Sites infested with Japanese barberry have significantly more deer ticks (*Ixodes scapularis*) than sites where Japanese barberry control efforts have taken place or where barberry is not present.

Non-chemical control Removal

Effectiveness in season: 90–100%
Season after treatment: 70–90%

Pulling or digging up small- to medium-sized barberry any time of the year is an effective individual plant control strategy if soil conditions are amenable. Remove the root crown, as Japanese barberry resprouts from that area. Small bushes can be pulled by hand and larger bushes can be pulled using a leverage tool. Digging up soil surrounding larger bushes can facilitate plant removal. If fruiting, avoid movement unless material can be transported without spreading fruit to other locations.

