

Invasive Species Profile: Japanese Barberry (*Berberis thunbergii*)

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Native Range: Japan and eastern Asia

U.S. Introduction: 1800s

Life Cycle: woody perennial

Means of Spreading: seeds

Commercially Available: yes

Control Method: hand-pull small specimens; mature bushes may need a Weed Wrench

Good Alternative Species: American barberry (*Berberis canadensis*), Virginia sweetspire (*Itea virginica*)

Comments:

Japanese barberry's history is a bit murky: some reports indicate what would be known as *Berberis thunbergii* first arrived in America in 1818, though this species was formally describe in 1865 by a Russian botanist studying Japanese flora. Japanese barberry definitely reached America by 1875 when the Arnold Arboretum (Boston, MA) received seeds from Russia. It was promoted as an ornamental shrub resistant to fungal blights infecting European barberry (*B. vulgaris*, already present throughout the northern U.S.). By 1910, Japanese barberry escaped cultivation. Banned from Canada in 1966, scientists in the 1970s recognized that Japanese barberry's invasiveness was a problem in the U.S., too.

Japanese barberry is now one of the most commonly planted bushes in both private yards and corporate grounds. With dense, typically maroon foliage (ranging from dark green to purple; new growth may be pink or orange), some people plant it for contrast against other plants. The small flowers and red berries accent the limbs. Scraping beneath the bark and roots reveals bright, lemon yellow woody tissue.

Many landscaping contractors and limited-stock nurseries (e.g., home repair and department store garden centers) advocate Japanese barberry since it is cheap and easily grown. Those characteristics are part of the problem: it grows too readily, reproduces too easily, and is already found everywhere! Resistant to disease and animal predation, Japanese barberry sprouts up just about anywhere its seeds settle. As it becomes established, this weed raises the soil's pH and chemistry making the immediate area's soil less hospitable for other plants. The mature, thorny thickets shelter small rodents. As most predators cannot catch and control the smaller animal

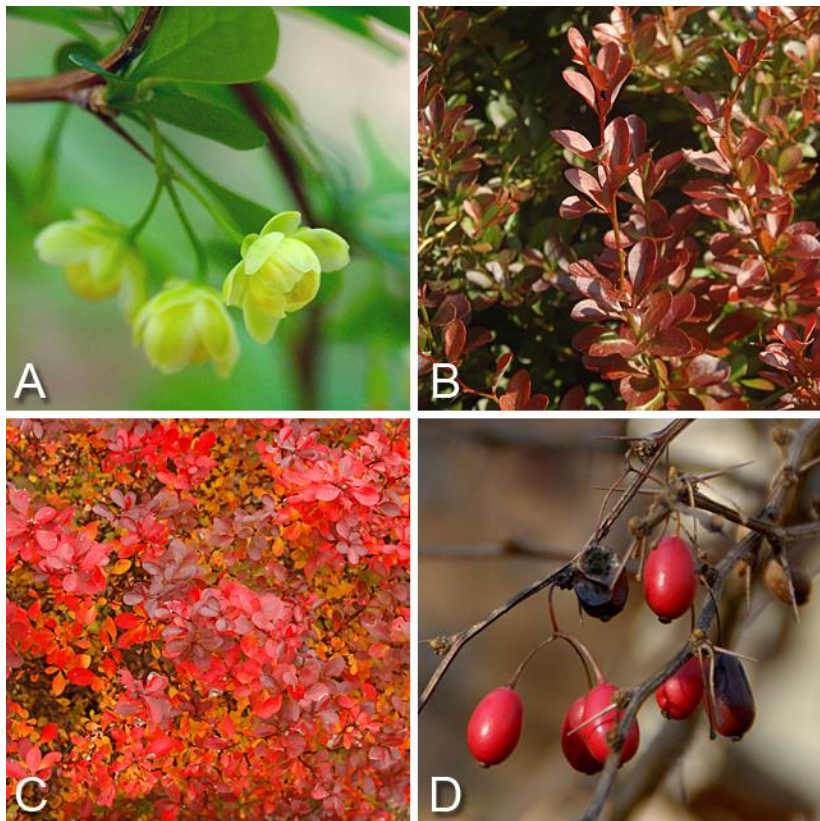


Figure 1. By mid-April, Japanese barberry flowers bloom as smooth, teardrop-shaped leaves emerge (A). Later in spring and throughout the summer months, burgundy foliage characterizes this bush (B). Come October, these leaves brighten from yellow to scarlet (C). As the foliage falls in November, Japanese barberry lives up to its name, exhibiting red berries and thin, barb-like thorns (D).

numbers and since young black-legged ticks (aka deer ticks, *Ixodes scapularis*) prefer rodent hosts, regions rampant with Japanese barberry also experience high Lyme disease instances. Areas with a healthy population of rodent predators (e.g., foxes) and free from Japanese barberry tend to have low numbers of Lyme disease cases.

Invasive Management Area (IMA) volunteers clear Japanese barberry from parklands. Private landowners can replace this weedy shrub from their grounds to create a healthier landscape and prevent further seed distribution. Just about any native shrub will work in the barberry's place. With a similar size and brilliant fall colors, an excellent native alternative is Virginia sweetspire. Furthermore, the late-spring blossoms are more showy than Japanese barberry. American barberry is another consideration, although within Virginia, it naturally occurs in the southwestern counties. For colorful foliage contrast, try a species of *Heuchera*—an herbaceous perennial, such as purple alumroot (*H. hispida*) or American alumroot (*H. americana*), which comes in many varieties.

If you would like to help eradicate Japanese barberry from the local parks, send an e-mail to me asking to be on the IMA Volunteer list.

For more information on Japanese barberry:

<http://www.fs.fed.us/database/feis/plants/shrub/berthu/all.html>
<http://www.invasivespeciesinfo.gov/plants/barberry.shtml>
<http://www.invasive.org/browse/subinfo.cfm?sub=3010>
http://www.columbia.edu/itc/cerc/danoff-burg/invasion_bio/inv_spp_summ/Berberis_thunbergii.htm

To see examples of how Japanese barberry links to Lyme disease:

<http://www.fort-worth-metropolitan-area.com/nativeplantwildlifegardencom/more-findings-on-the-link-between-japanese-barberry-and-lyme-disease/>
<http://www.sciencedaily.com/releases/2012/06/120618153714.htm>

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