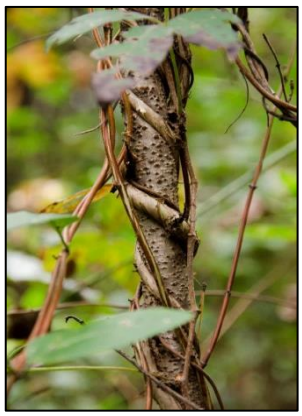
JAPANESE HONEYSUCKLE

Strangles, Smothers, and Kills Vegetation

The Culprit

Japanese honeysuckle (*Lonicera japonica*) is one of the most menacing plant invaders in the Blue Ridge. Widespread in the eastern US and Midwest, as well as parts of the West, this nonnative was first planted in North America as a fragrant ornamental vine on Long Island, New York, in 1806. In the 1990's, wildlife biologists recommended it for wildlife habitat and erosion control. Soon thereafter, the harm it did to biodiversity and natural habitat was recognized as being more ominous than any shelter and forage benefits it offered wildlife. Japanese honeysuckle was soon targeted for eradication, but by then it was already a bad problem.

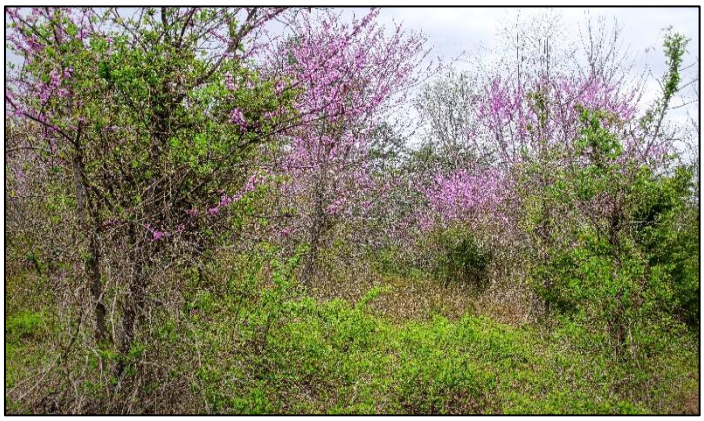


Note the difference between the bark on the older honeysuckle vine twining the trunk and the bark on the slender vines draping from above.

This rapidly spreading nonnative vine competes for both above- and below-ground resources, inhibiting the growth of desirable trees, shrubs, grasses and wildflowers. The vine changes forest structure by engulfing and killing small trees and shrubs, and by strangling or toppling large trees; thus, it can alter bird and wildlife populations. It aggressively threatens natural succession by colonizing fields, meadows and forests, sometimes forming a dense, permanent "disturbance climax." The vine hampers regeneration in both wild and timbered areas and can persist even in an old growth forest. Especially troublesome where selective tree harvesting is practiced, this pest thrives in the increased sunlight let in by logging and ash trees killed by emerald ash borers. During a forest fire, Japanese honeysuckle vines can act as "fire ladders" that send the fire high into the tree canopy.

Known Hangouts

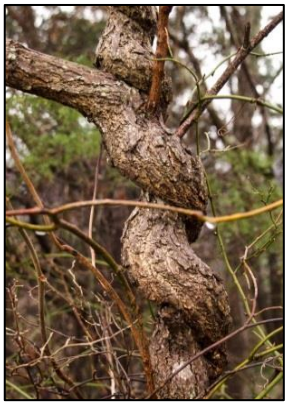
Japanese honeysuckle is particularly fond of climbing on and engulfing fences and hedges and grabbing onto nearby tree branches to ascend even higher. It hangs out along roadsides and forest edges, in fields and meadows, and high up in nearby trees. It often forms a groundcover on the forest floor where it creates a smothering mat of slender vines and foliage. From the forest floor, it grabs onto trees and saplings and begins scaling skyward. Dense thickets can form, especially in sunny locations. Look for it in areas where trees were cut, thinned, or died. In these locations, increased light allows the vine to rapidly grow.



All the green foliage in this spring scene is a blanket of Japanese honeysuckle clambering over shrubs and twining into redbud trees.

Modus Operandi

Because Japanese honeysuckle retains its green leaves well into winter (year-round in mild climates) and forms new leaves very early in spring, it photosynthesizes and grows during much of the year in Virginia. This gives it a decided advantage over native plants. A semi-evergreen vine, it grows both by climbing and by spreading and rooting along the ground. Because it roots at the nodes on the stems, sends up shoots from its spreading root system, and branches prolifically, it can form thicket, which are densest in sunny locations. Japanese honeysuckle prefers moist, fertile soil, but tolerates drought. In shade, it grows weakly, mostly runs along the ground, and doesn't usually flower.



Removal of a strangling Japanese honeysuckle vine saved this young maple. But the trunk's corkscrew shape indicates the struggle it made to grow and survive against the vine's chokehold.

To begin climbing, this invasive needs a slender scaffolding less than 4 inches across. Saplings, bushes, twigs, and other vines offer a ladder. When it is high enough to receive plenty of sunlight, the vine branches and grabs onto limbs and neighboring trees. Once established, it can twist as high as 40 feet into a tree, damaging and even killing it. With age, the once-slender vines can reach 4 inches in girth. The pressure exerted by the expanding vine cuts off the flow of water and nutrients in a tree's trunk, eventually strangling it to death. The vine's dense growth can topple a tree with its weight before it smothers it, making the tree vulnerable during storms.

Follow all herbicide label directions

Japanese honeysuckle's fragrant flowers bloom all summer, most heavily in early summer. In some areas, pollination does not occur due to the invasive vine's lack of pollinators outside its native habitat. If pollination occurs, fruit-eating birds readily consume them. They deposit the seeds beneath trees and fences when roosting, spreading and "planting" the aggressive weed where it's likely to find the best scaffolding.

Positive Identification

Japanese honeysuckle is a perennial, woody vine. Its glossy, dark green leaves are oval or occasionally lobed like an oak leaf, and have smooth edges. They measure 1.5 to 3 inches long. The leaves are arranged in pairs directly opposite each other. Semi-evergreen to totally evergreen, the foliage remains on the plants at least well into winter. Young stems are reddish-brown to light brown and slightly hairy. Older stems have light brown to tan bark that peels in long strips.

Left: *Flowers of Japanese honeysuckle bloom in pairs on opposite sides of the stems.* Middle: *Leaves and fruits are opposite each other on the stems.* Right: *Bark of older vines is light brown and shredded.*

The tubular flowers are sweetly fragrant and bloom in pairs on opposite sides of the stems from early summer into fall, most heavily in summer. They open white or pinkish and mature to yellow. Long, curved stamens project beyond the petals. Children (and adults) like to pull the flowers off the stems and suck the sweet nectar ("honey"). Small green berries, which ripen to black, may form after the flowers fade.

*The leaf bases of the native trumpet honeysuckle (*Lonicera sempervirens*) are joined at the base.*

Mistaken Identity

Two species of honeysuckle vines are native to Virginia. You can distinguish them by the arrangement of their leaves. The leaves of these native vines do not have stems (petioles) and the leaf pairs at the stem tips beneath the flowers are joined and enclose the stem. Invasive Japanese honeysuckle's leaves have short petioles and are not joined. Leaves of both the nonnative and the native honeysuckles are opposite each other. Other invasive and native vines have alternate leaves.

Search and Destroy

Look for Japanese honeysuckle in sun and shade, along fences and roadsides, in fields and clearings, on the forest floor, and climbing into trees. Removing unnecessary fences and hedges limits places where the vine can climb.

Japanese honeysuckle – all the dark green foliage here – carpets the ground in this young woodland and climbs trees as it grows toward sunlight.

Manual & Mechanical: Hand-pulling young Japanese honeysuckle in a small area can be effective, but any roots left in the soil will resprout. Where the vine climbs trees in a forest and also runs on the ground, pull up the crown (where stem joins the main roots) and sever it from the main stem and from the remaining root system. This weakens the rooted runners on the ground, but a foliar spray is still needed to entirely kill the plant. (See below.) Fields and roadsides can be mowed twice a year to slow down the vine, but mowing increases the plants' density.

Prescribed Burn: Prescribed burning in areas that can be burned controls top growth for two growing seasons, then needs to be repeated to kill resprouts.

Foliar Spray: A recommended herbicide applied to foliage, if timed right, effectively controls Japanese honeysuckle. The best time to spray is autumn and early winter after most native plants have lost their leaves or are dormant, but before a hard freeze (25°F). At that time, the evergreen honeysuckle leaves take up the spray and you avoid injury to spring ephemerals and adjacent deciduous plants. Foliar sprays are less effective in spring because the herbicide does not thoroughly move from the leaves into the roots during spring growth. If feasible, wait until after July 4 to treat. Add surfactant if the product does not contain it. You may need to retreat to catch any plants that were missed due to dense growth. Don't spray overhead vines. Instead, cut them near the soil any time of year to kill the top growth; apply foliar herbicide to the regrowth.

Cut Stump: Sever thick vines near the ground and treat the cut ends with a recommended concentrated herbicide from early summer into winter. To avoid hurting tree branches and yourself, do not pull heavy vines from trees.

Japanese honeysuckle's seed bank is short-lived, but birds may continually introduce seeds from nearby sources and begin new infestations. Treat these new plants early, when young, before they become difficult to control.

For currently approved herbicide recommendations, check the Virginia Department of Forestry chart *Non-Native Invasive Plant Species Control Treatments*, which you can download from the Blue Ridge PRISM website.

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Written by Susan A. Roth for Blue Ridge PRISM

Follow all herbicide label directions.