Invasive Species Profile: Japanese Holly (Ilex crenata)

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<u>Native Range:</u> eastern Asia <u>U.S. Introduction:</u> 1864 as an ornamental plant

<u>Life Cycle:</u> perennial shrub <u>Means of Spreading:</u> berries, eaten by birds, which pass the seeds

Commercially Available: yes
Control Method: hand-pull
seedlings and saplings. Mature
bushes may require mechanical
tools, such as a Weed Wrench. Cut
down large shrubs leaving two feet
of defoliated branches; continue
manually removing new growth until
the plant dies (takes approximately
two years).

Good Alternative Species: inkberry holly (*Ilex glabra*)

<u>Comments:</u> In seasons when deciduous plants are dormant and without leaves, large native evergreens, such as American holly (*Ilex*



Figure 1. Japanese holly (A) has serrated, dark green leaves alternating along the branch. This bush is often mistaken for boxwood (*Buxus* sp., B), a well-behaved exotic genus. Among the differences, the latter has smooth-edged, medium to light green leaves positioned opposite each other on the branch.

opaca), red cedar (*Juniperus virginiana*), or Virginia pine (*Pinus virginiana*), become conspicuous in the woods. This time of year is also a perfect time to spot non-native invasive evergreens, such as Japanese holly (*I. crenata*). This shrub's story in the United States begins with its introduction in 1864. People immediately liked (and still do now) the compact, dark, evergreen foliage. All hollies come as separate male and female plants; only female Japanese hollies produce berries, which are black. As nurseries imported different subspecies and cultivars, American arborists developed other varieties here. These days, landscapers often turn to Japanese holly as a tougher substitute for boxwood (*Buxus* sp., especially *B. sempervirens* and *B. microphylla*). The popular Japanese hollies now pepper many private and commercial American properties, especially in hedges and foundation plantings.



Figure 2. All of the evergreens in this winter woodland scene are Japanese hollies invading Royal Lake Park.

Japanese holly adapts to many climates (hardiness growth zones typically 5-9, depending on variety), accepts diverse soil conditions, requires little care, and resists scores of pests and diseases. Birds ingest the berries and pass the seeds elsewhere, enabling this plant to escape cultivation. In natural areas, this plants' exceptionally dense foliage and branches close to ground block native plants from growing. The branches continuously touching the soil can sprout roots, thereby widening the holly's real estate. Without sufficient biological controls. Japanese holly's "garden delight" status now becomes "noxious weed." Currently, Fairfax is one of several counties throughout the U.S. recognizing

Japanese holly as an invasive weed. Other localities view it as an emerging threat. Adding to the problem is that Japanese hollies are still deliberately propagated and purchasable here. From budget hardware store garden centers to landscape contractors to up-scale nurseries, Japanese hollies are sold under either the broad species name or as a cultivar, such as 'Green Luster,' 'White Heller's,' 'Sky Pencil,' 'Golden Gem' (variegated), 'Dwarf Pagoda,' 'Compacta,' or 'Mariesii.'



Figure 3. Japanese holly (middle) shares a similar appearance with several other bushes, seen here with magnified leaf edges. On the left is non-native invasive Chinese privet (Ligustrum sinense), with smooth, opposite leaves. Native inkberry (right) is another holly. Both hollies possess alternating leaves and tiny serrations on the ends. Inkberry leaves extend long and narrow. The background grids are one inch.

A good native substitute for Japanese holly is inkberry (*I. glabra*), which flourishes along the coastal states from Texas to Maine. In Virginia, it naturally occurs on the Delmarva Peninsula and in southeastern counties. The moderate leaf coverage allows other garden plants to grow near the inkberry's base. Examples of landscaping with inkberry include the median at GMU's Roanoke River Road entrance and along the tree-lined pavement at Fairfax Corner.

For more information specific to Japanese holly and general non-native invasive weed lists, check out these on-line references:

https://www.invasiveplantatlas.org/subject.html?sub=11555

https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/13/2013/11/invasive-1.pdf http://dnr.maryland.gov/wildlife/Pages/habitat/wabadplants.aspx

http://www.fosc.org/InvasivePlantList.htm

https://plantfacts.osu.edu/pdf/0246-1216.pdf

https://www.gardenguides.com/101446-pests-diseases-japanese-holly.html

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