Invasive Species Profile: Japanese Wineberry (Rubus phoenicolasius)

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Native Range: Japan, China, and Korea U.S. Introduction: at least 1890 Life Cycle: perennial shrub Means of Spreading: runners along roots; branches root when in prolonged soil contact; berries, eaten by birds which pass the seeds Commercially Available: yes, through small sellers Control Method: hand-pull Good Alternative Species: purple-flowered raspberry, aka the Virginia raspberry (Rubus odoratus), red raspberry (Rubus idaeus)

Comments: The last edition discussed the <u>Himalayan blackberry</u> (*Rubus armeniacus*), a rampant weed. While many of the blackberry and raspberry members can be difficult to discern, and hybridizations only confuse matters more, Japanese wineberries or simply "wineberries" (*R. phoenicolasius*) are easily identified invasive plants. The most distinct feature is the dense, maroon thorns coating the canes. The majority of these spines are so thin



Figure 1. Wineberry has a unique appearance so it is unlikely to be mistaken for other plants. This image shows the leaf structure and spine-covered fruit pods surrounding one unripe berry. The inset depicts a ripe fruit.

that they look more like hairs, though some thicker ones can give a good jab. These bristles extend to the pods covering the developing fruits. As the fruit nearly ripens, the pod opens and reveals a small, burgundy-colored raspberry; more on these fruits later. Compared to other *Rubus* members, wineberry leaves have three leaflets that are extremely wide with a cool, bluish or sea green hue, though precise colors vary over the seasons. The foliage undersides are much lighter than the tops. Like Himalayan blackberries, the longer branches bend under their own weight and send roots where there is prolonged ground contact. This asexual reproduction gives wineberry thickets a looping appearance as the bushes multiply through a botanical version of leapfrog.

The second way wineberries spread is by the seeds buried in their berries; birds and other wildlife eat the fruits, passage through the digestive system primes the seeds for germination, the seeds emerge in animal droppings, and the new plant sprouts where deposited. The mobile critters help extend the range to longer distances than if the seed grew close to the parental plant. Unlike the tasteless Himalayan black-berries, wineberries are sweet and flavorful, which contributes to their popularity. In fact, these yummy fruits are the reason wineberries were brought to the U.S.: to be crossed with other raspberry and black-berry species to produce hybrids. People eat wineberries raw or in baked goods. The "wine" in their name regards their color and not that they are wine-making ingredients, though cordials and other alcoholic beverages can be made with various fruits. Typical baking temperatures should kill the wineberry seeds consumed by humans; processing in a sewage treatment facility destroys any viable seeds from raw berries that people swallowed and passed.

Unfortunately, North America lacks adequate biological controls to keep wineberries in check. Without suitable controls, these bushes become aggressive weeds that overtake natural areas, especially along forest edges. On Fairfax County parkland, volunteers in the Invasive Management Area (IMA) program

help to eradicate wineberries. This weed usually uproots easily by hand but all of the roots must be removed or the remaining fragments will regenerate a new plant. It can be pulled anytime of the year given soft, thawed ground.

Some people have the philosophy, "I like the wineberries. Wildlife likes the wineberries. Therefore, I will grow wineberries." This mindset ignores that 1) only a small number of animals benefit from the fruits. 2) mixed native shrubs and other plants have a much wider wildlife impact, 3) invasive wineberries displace the beneficial native flora, 4) any perceived gain from the wineberry fruits only lasts a couple of weeks whereas the detriments are endured year-round, and 5) there are native alternatives with scrumptious berries that people may enjoy such as red raspberries (*R. idaeus*). Red raspberries are available as wild types and cultivars-the same ones appearing in grocery stores. These plants are native to many parts of the northern hemisphere including six central-Virginia counties. Look for the American subspecies, R. idaeus strigose, which includes the common cultivar, "Heritage." Also, purple-flowered raspberry or Virginia raspberry (R. odoratus), makes a cool addition to edible landscaping. This Fairfax County native's magenta blossoms brighten the yard while providing a food source for pollinators.

For more information on wineberry:

https://www.invasiveplantatlas.org/subject.html?sub=3072 https://www.invasive.org/weedcd/pdfs/wow/wineberry.pdf https://mdinvasives.org/iotm/sept-2006/ http://nyis.info/invasive_species/wineberry/ https://www.inaturalist.org/guide_taxa/354717 https://www.fs.fed.us/database/feis/plants/shrub/rubpho/all.html



Figure 2. Backlighting emphasizes the hair-like thorns covering wineberry canes. These spines vary in thickness (magnified section). Live stems are red but the color dulls to brown when dead (hanging on left). Photograph taken in December.

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