## Invasive Species Profile: Leatherleaf Mahonia (Berberis bealei)

By Greg Sykes (greg@grsykes.com)

## Native Range: China

U.S. Introduction: exact year remains unclear discovered and brought to Britain in 1845; shortly afterwards, globally distributed from the U.K. <u>Life Cycle:</u> woody perennial <u>Means of Spreading:</u> seeds <u>Commercially Available:</u> yes <u>Control Method:</u> hand-pull small specimens; mature bushes may need a Weed Wrench <u>Good Alternative Species:</u> American holly (*Ilex opaca*)

## Comments:

In the January 2015 *Herald* edition, we revisited wavyleaf basketgrass (*Oplismenus hirtellus* ssp. *undulatifolius*) and how the Fairfax County Park Authority's Early Detection Rapid Response (EDRR) program monitors it. Through EDRR, biologists and volunteers comb the parklands to document occurrences of certain non-native plant species currently found at low levels but capable of becoming bigger invasive threats. Today's article examines another member on the EDRR watch list: leatherleaf mahonia (*Berberis bealei*).

With most plants dormant and devoid of leaves during the winter months, evergreens stand out in the forest. Leatherleaf mahonia is more conspicuous than other plants because it seems so alien and out of place, prompting some people to



Figure 1. Each leatherleaf mahonia "branch" seen here is actually a single, large, compound evergreen leaf. The leaflets make the shrub appear to have an opposite leaf arrangement.

wonder, "What's the deal with that lanky, weird-looking holly?" For starters, leatherleaf mahonia sports tough, pointy leaves capable of scratching skin but is unrelated to hollies. Although this plant lacks thorns, it belongs to the barberry family. The common name nods to this species' former Latin designation, *Mahonia bealei*, which some nurseries and gardening resources erroneously continue to use. After the reclassification, it now falls under the genus *Berberis* and retains the original species name.

Whereas leatherleaf mahonia shares some superficially similarities with holly, all holly leaves sprout along the branches in an alternating arrangement. Leatherleaf mahonia's foliage forms a swirl, although the leaflets give the appearance of an opposite leaf pattern (see Figure 1). Unlike bushy hollies, leatherleaf mahonia tends to grow straight up from several trunks. Scraping the bark reveals brilliant, lemon-yellow inner tissue; this feature is a characteristic shared by leatherleaf mahonia's weedy relative, <u>Japanese</u> <u>barberry</u> (*Berberis thunbergii*), profiled in the August 2014 edition. A pale powder covers the mature, purplish blue mahonia berries. The plant is spread primarily through seeds consumed and distributed by birds. "Feeding wildlife" this way might sound good until one realizes the shrubs are inadequate host plants for insects—the same insects onto which young birds feed. Furthermore, *B. bealei*'s growth is left uncheck by local diseases, parasites, and herbivores.

For now, leatherleaf mahonia is a concern within the southeastern states including Virginia. It prefers growing in dry forest habitats. As an EDRR subject, leatherleaf mahonia is not listed as a target on the Invasive Management Area (IMA) permits. Accordingly, IMA volunteers eradicate higher priority targets unless the Park Authority supervisors grant special permission to pull a patch of mahonia during a specific workday.

Most folks find it more of an odd plant than an attractive one, which raises the question: Why select a plant with all of the insidious properties of other foreign weeds when good, native alternatives are available? Enough exotic invaders infest the local woods; the natural areas can do without another nuisance. For a dense, toothedleaved evergreen that tolerates shaded, dry clay areas, consider American holly as a native alternative.

For more information on leatherleaf mahonia:



Figure 2. Leatherleaf mahonia's flower stalks form by late autumn. Yellow blossoms emerge in April. Developing fruits (indicated by the white arrow) quickly ripen in the months ahead.

http://www.mdinvasivesp.org/archived\_invaders/archived\_invaders\_2010\_07.html http://www.invasive.org/browse/subinfo.cfm?sub=6889 http://www.carolinanature.com/trees/bebe.html https://davesgarden.com/guides/articles/view/2097/

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