

## NATURALLY: Japanese barberry presents prickly problem in White's Woods

- By DR. DANA DRISCOLL Special to the Gazette
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Japanese barberry (*berberis thunbergii*) is a very prickly shrub with small, waxy red berries and tiny green leaves. If you've been in any of our local parks, you have certainly seen it.

Native to Japan and eastern Asia, Japanese barberry is now widespread in the United States and is considered invasive in our ecosystem throughout the Eastern Seaboard.

It was originally grown as an ornamental plant but quickly spread into the wild areas of the U.S. by birds, who enjoy the bright red seeds in the fall. The good news is that invasive plants are often delicious, medicinal and tasty, and there's no shortage of them to forage to support our ecosystem.

One of the problems with Japanese barberry is that numerous studies have correlated it with increased tick habitat and the spread of Lyme disease. Specifically, studies demonstrate that significantly more ticks are found in higher concentrations in forests with Japanese barberry growing because the shrub provides a good habitat for ticks.

As tick-related illnesses are rising in our region, it is critical to work to control Japanese barberry in our forests. Additionally, Japanese barberry has similar issues to other species on the Pennsylvania Department of Conservation and Natural Resources (DCNR) invasive species list: Barberry displaces native habitats, it can out-compete native plants (such as elderberry, spicebush and other native

bushes); it does not offer the same level of food or habitat as our native bushes, and also can alter the soil PH and deplete the nitrogen in soil, reducing the overall fertility of the forest.

As of 2023, it is illegal to sell Japanese barberry in Pennsylvania (unless thornless, sterile and the merchant has permission from the DCNR).

Japanese barberry is easy to identify, but you will want to distinguish it from our native American barberry (*berberis canadensis*). The native barberry does not have the problems described above and belongs in our ecosystem. The leaf is a key distinguishing factor from the American barberry — American barberries have sawtooth patterns on the edges of the leaves, while the Japanese barberry is completely smooth.

American barberry also has clusters of berries and flowers, while Japanese barberry has single berries or flowers hanging in a line. Japanese barberries found in the wild are typically green until fall, but some ornamental varieties can be brown, gold, maroon or red throughout the growing season.

For the last two years, the Friends of White's Woods organization has been hosting Japanese barberry pulling days to help control it in White's Woods. These weed pulls have been highly successful and will continue into 2024. If you are interested in learning more about when they will take place, please see <https://www.friendsofwhiteswoods.org>.

To pull barberry, one needs thick leather gloves to protect from the small thorns. Older plants require you to dig the root out with a shovel.

The good news is that if you go to the trouble of removing Japanese barberry in your ecosystem, this shrub is both edible and medicinal. Barberry berries are edible and they are used in many different cuisines including throughout the Middle East. The fruits of both American and Japanese barberry are edible any time after they turn red, and fruits can be found well into the winter months.

While the Japanese barberry fruits are sometimes bitter when first ripe, as the winter deepens they grow sweeter with age, and thus, foraging them into December and even January is a great idea.

You can add these to rice dishes, oatmeal or even cook the famous Persian "Zereshk Polo" chicken dish. The leaves are also edible and can be added to soups, stews and stir fry.

Assuming you might be interested in pulling Japanese barberry, you should also know that the root of this plant is an outstanding medicinal herb, which can replace more at-risk herbal medicines.

As the Latin name indicates, it contains berberine, which is a chemical compound that is antiviral, antibiotic, can reduce blood sugar, support the liver, and more.

This invasive plant can replace several at-risk botanicals including goldenseal (*hydrastis canadensis*) or Oregon grape root (*berberis aquifolium*). The most common way to make medicine from this plant is to tincture it.

This year, Friends of White's Woods will be hosting a medicine-making workshop for barberry along with its barberry pulls.

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*The Naturally columns are brought to you each month by the Indiana Gazette and Friends of White's Woods to showcase the wonders of nature in our area.*