

The Outside Story

Asiatic Bittersweet: Festive, but Invasive

By Olivia Box

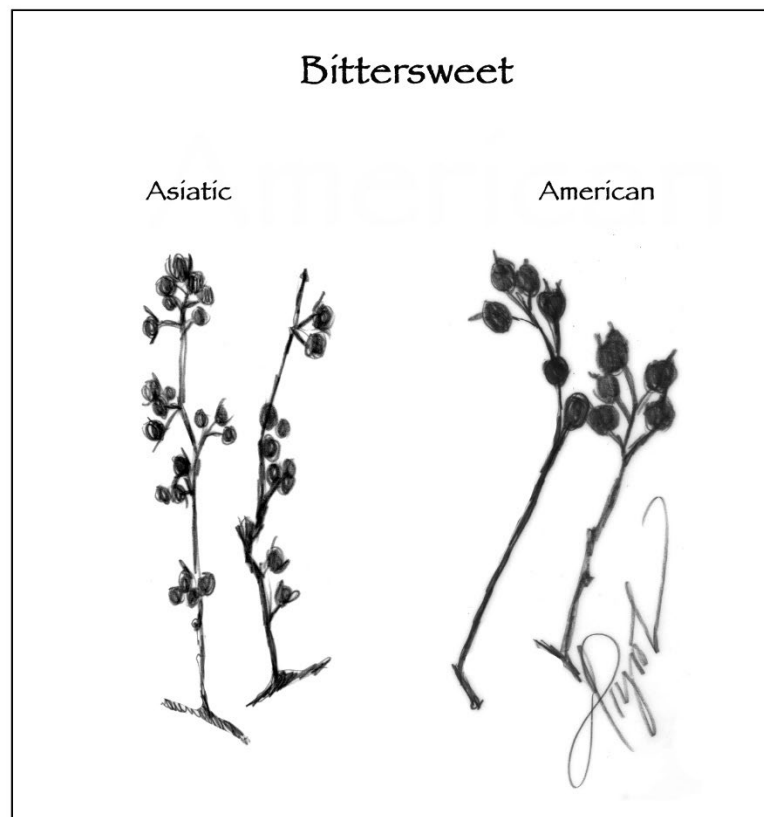
My daily walk around my city this fall has been dominated by one plant. It is abundant and leafy with red berries and orange or yellow foliage. It seems to fit in perfectly with a New England autumn in its color and exuberance. Despite its festive appearance however, this plant – *Celastrus orbiculatus*, more commonly known as Asiatic bittersweet – is an exotic invasive that has wreaked havoc in both urban and forested environments.

Asiatic bittersweet is native to China, Japan, and Korea and arrived in the United States in the 19th century as an ornamental plant. It has spread widely, and its sale and distribution are now banned in many states, including New Hampshire and Vermont. Asiatic bittersweet thrives in many different environments: forests, forest edges, urban streets, gardens, and beaches. This woody vine, which may reach 60 feet in length and 10 inches in diameter, can devastate native flora by growing over plants to block sunlight, and twining around the stems and trunks of vegetation to essentially strangle growth.

“Its rate of spread is a bit like a Jack and the Beanstalk fairy tale,” said Rebecca Finneran from Michigan State Extension. “It has been observed covering half-acre wood lots in just 7 to 10 years.”

Found from Maine to Wisconsin, Asiatic bittersweet has glossy, round leaves measuring 2 to 4 inches long. Small, yellow-green flowers emerge in spring, leading to yellow-skinned fruit, which splits in the autumn to reveal a scarlet aril – a fleshy covering resembling a berry – containing yellow seeds. These red arils last tenaciously into winter – and attract birds who eat them and humans who clip bittersweet vines to use in decorations, aiding in the spread of this invasive.

Its adaptability and reproducibility make Asiatic bittersweet the perfect storm of an invasive species. Its seeds can disperse over long distances, often aided by the birds and other wildlife that eat them and deposit them elsewhere as waste. The seeds continue to be viable when they are dry, and since this



invasive is commonly used for seasonal décor, discarded wreaths and other adornments often lead to new germination. For this reason, wildlife experts encourage people to avoid using Asiatic bittersweet to decorate. The species also spreads through its fast-growing roots; dozens of stems may grow from a mature root system.

Bittersweet is notoriously difficult to eliminate once established. The USDA's Natural Resources Conservation Service recommends considering the extent of an infestation and possibly combining mechanical and chemical treatments for best results.

Experts consider cutting the vine down and applying an herbicide to the remaining stems to be one of the most effective combination methods. Cutting may be done at any time of year. Another method is to cut the stems and treat new sprouts with an herbicide. Pulling roots by hand is another tactic for tackling bittersweet. However, the plant roots deeply into the soil, and even tiny root fragments left in the soil can resprout. Plants – including roots, runners, and vines – pulled from the ground should be disposed of in plastic bags. (For help addressing specific invasive infestations, contact your local Extension office.)

One victim of Asiatic bittersweet's spread is American bittersweet (*Celastrus scandens*), a native look-alike that is being displaced by its invasive counterpart. The fruit and flowers of American bittersweet grow in terminal clusters, while Asiatic bittersweets fruits grow along the stem in the axils of leaves. While American bittersweet also grows easily and vigorously, this vine does not grow as large as the invasive species and will not push out other plants, as Asiatic bittersweet does.

The native and invasive species can hybridize, and conservation biologists worry hybridization may lead to further decline of American bittersweet. The native plant was once common throughout the Northeast, but is now listed as uncommon, rare, or endangered in most areas of the region.

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