The Invasive

*Celastrus orbiculatus* (Oriental bittersweet)

*Celastrus orbiculatus* is a deciduous woody vine that climbs by twining around a support. It can climb to a height of 46 feet and its stems can grow to 4 inches in diameter. It has undeterred five-petaled green flowers in late May to early June. The subtlety of *C. orbiculatus* in the spring is a stark contrast from its bright fall appearance, when leafless branches are covered with small clusters of yellow capsules that split to reveal bright orange-red fruits.

With these showy persistent berries, popular in floral arrangements and fall wreaths, it is easy to see why *C. orbiculatus* was introduced in 1869 as an ornamental. However, the positive attributes for this species start and end with its use in such crafts. *C. orbiculatus* is native to eastern Asia, China, Korea, and Japan. It is a vigorous invader of forests, fields, hedgerows and disturbed land across the Midwest and Atlantic coast.

It is still planted as an ornamental as well as along roadways to prevent erosion.

*C. orbiculatus* is invasive for many reasons. Its attractive berries are dispersed by birds. Once established, the individuals also spread by root suckering. According to the Ohio Invasive Plants Council, due to its twining habit and vigorous growth, *C. orbiculatus* severely damages to native plant populations by limiting needed sunlight, choking out flower stems and over-wounding trunks, which increases the likelihood of wind damage.

The displacement of native plants (American bittersweet) by *C. orbiculatus* is of great concern. *C. orbiculatus* threatens the species survival of *C. scandens* because it grows in similar habitats, is more tolerant of shade and its seeds have a higher germination rate. According to the U.S. Forest Service another threat to our native bittersweet vine is the ability of *C. orbiculatus* to hybridize with *C. scandens*. While the viability of pollen produced by these hybrids is low, hybridization does threaten the distinct genetic identity of *C. scandens*.

Thousands of plants have been introduced to the United States from other parts of the world. Some have come here accidentally in seed stock, while others were brought here intentionally for horticultural use. A small number of these introduced plants have gotten a little too comfortable in their new environment. Because they have no native predators and produce a lot of fruit and seed that are efficiently dispersed, they are invading natural areas. The aggressiveness of these invasive plants affects natural areas and wildlife by decreasing biodiversity, competing with native and rare plants and eliminating wildlife habitat and food sources.

Plant This, Not That features a list of native alternatives to a commonly used landscape plant that has become invasive. The alternatives were chosen because their characteristics—form, flowers, fruit or fall color—are similar to that of the invasive and fulfill the same landscaping need. Plants that are native to Ohio are recommended when possible because they help to maintain the biodiversity of our native habitats, help to keep the landscape safe and healthy.

Invasives such as *C. orbiculatus* have been widely used as an ornamental and hedgerow plant. It can climb to a height of 66 feet and its stems can grow to 4 inches in diameter. It has undeterred five-petaled green flowers in late May to early June. The subtlety of *C. orbiculatus* in the spring is a stark contrast from its bright fall appearance, when leafless branches are covered with small clusters of yellow capsules that split to reveal bright orange-red fruits.

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The Alternatives

*Celastrus scandens* ‘Autumn Revolution’ (Autumn Revolution American bittersweet)

This cultivar of the native bittersweet vine truly is revolutionary. In the past, *C. scandens* cultivars have not been favored by gardeners because both a male and female plant are required to produce fruit. ‘Autumn Revolution’ contains a naturally occurring mutation that results in perfect flowers, containing both male and female parts and thus is able to produce fruit on its own. The fruit itself is twice as large as wild *C. scandens* and *C. orbiculatus* fruit and is showier. In addition to large, attractive fruit, ‘Autumn Revolution’ is also a vigorous grower that thrives in poor and clay soils. It is also salt tolerant. While it is an excellent choice for climbing fences and arbors, caution should be taken when planting this vine as it climbs by twining and can girdle trees and shrubs. This restricts sap and waterflow, which weakens, and can kill trees and shrubs.

*Lonicera sempervirens* (Scarlet Honeysuckle)

This native honeysuckle has it all. It is well mannered, has prolific showy scarlet flowers, blooms all summer long and attracts wildlife. All of these qualities make *L. sempervirens* a superb choice for the home landscape.

While many vines have a reputation of being rowdy roommates, *L. sempervirens* is a good neighbor. Growing to 10-15 feet, it is easily controlled by pruning. It is not too picky, preferring moist sandy or loamy soils, but also grows well in the clay soils most common in Northeast Ohio. *L. sempervirens* is also a show-stopping ornamental. Its trumpet-shaped, scarlet and orange clustered blooms will persist throughout the summer if planted in full sun. These blooms are irresistible to hummingbirds.

Other pollinators, such as the spring azure butterfly and the snowberry clearwing moth, use it as a host plant to lay eggs.

As the bright blooms of summer fade, autumns is rewarded with small, red, fleshy berries that provide food for many birds. Cultivars of *L. sempervirens* are available at local nurseries and garden centers. One of these is *Lonicera sempervirens* ‘Blanche Sandman’, a leaf disease resistant cultivar with brilliant orange-red blooms. Look for this native honeysuckle cultivar in the Ariene and Arthur S. Holden Jr. Butterfly Garden climbing the arbor behind the Katharine Holden Thayer Center.