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Natural Area Preservation

INVASIVE PLANTS

Oriental Bittersweet *Celastrus orbiculatus*

History

Native to Asia, oriental bittersweet (*Celastrus* orbiculatus) was introduced to the United States in the 1860s for use as an ornamental plant. Since that time, it has escaped into natural areas and crowded out native plants in both forested and sunny areas. This exotic vine degrades plant communities by aggressively entwining and covering native vegetation, often uprooting surrounding vegetation with its weight. This growth habit allows oriental bittersweet to out compete adjacent vegetation for light and other resources. Continued ornamental use of oriental bittersweet has contributed to its distribution.

How Can I Identify It?

Oriental bittersweet is a deciduous, woody, perennial vine that may become a trailing shrub. Its leaves are glossy, rounded, finely toothed, and arranged alternately along the stem. The stems of older plants can be up to four inches in diameter. If you see them this size, they are often tightly wound around the stems and trunks of trees and shrubs, a growth habit unlike any native Michigan vine. Clusters of small, greenish flowers emerge from its leaf axils. Leathery, globular seed capsules ripen to red or bright orange. The seeds are mainly dispersed by birds and germinate in late spring. Oriental bittersweet also spreads by stolons (above-ground stems) and rhizomes (underground stems), and by root suckering (sending shoots up from the roots). *The native American (climbing) bittersweet (Celastrus scandens)*

has a similar appearance to its non-native cousin, but its leaves are more oval than round and it flowers only at the tips rather than along the leafy stems.

The mission of Natural Area Preservation is to protect and restore Ann Arbor's natural areas and to foster an environmental ethic among its citizens.

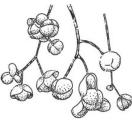
How Can Oriental Bittersweet Be Controlled?

• NAP's preferred control methods are hand-pulling and the use of foliar herbicide spray in the late summer/fall months. Weekly mowing can eradicate plants, but less frequent mowing will only stimulate root-suckering.

What Can I Do?

• Learn to identify oriental bittersweet.

• Replace oriental bittersweet with native vines such as Virginia creeper (*Parthenocissus quinquifolia*), Virgin's bower (*Clematis virginiana*) or wild cucumber (*Echinocystis lobata*) in ornamental landscaping



Oriental bittersweet berries.

- If you see a small infestation, cut vines and pull out the entire root. Leave cut plants elevated on logs or rocks so roots do not have contact with soil. If fruiting has already occurred, bag vines and either take bags to a landfill or municipal compost center, or let them bake in the sun to kill all seeds. Home composting is typically not hot enough to kill weed seeds.
- Avoid purchasing decorative items that are made with oriental bittersweet. If you do, destroy the berries in a fire, send them to the municipal compost facility, or seal them in a plastic zip top bag and put it in the trash. If you aren't sure if it is the native bittersweet or the invasive oriental bittersweet, assume it is the invasive and discard appropriately.
- Camp and travel in invasive-free areas (when possible).
- After visiting an area that has oriental bittersweet present, clean up before you leave the site! Make sure your clothes, vehicles, and pets are seed-free.

Oriental bittersweet leaf showing leaf margins.

- Stay on, and keep pets on, established roads and trails to prevent invasive seed dispersal.
- Learn to identify other invasive weeds. Invasive herbaceous plants NAP would appreciate help with are:

garlic mustard (*Alliaria petiolata*) bittercress (*Cardamine impatiens*) knapweed (*Centaurea spp.*) Canada thistle (*Cirsium arvense*) lily-of-the-valley (*Convallaria majalis*) dame's rocket *(Hesperis matronalis)* golden archangel *(Lamiastrum galeobdolon)* common motherwort *(Leonurus cardiaca)* purple loosestrife *(Lythrum salicaria)* Japanese knotweed *(Fallopia japonica)*

Natural Area Preservation is funded by Ann Arbor's voter-approved Parks Maintenance and Capital Improvements Millage.