



MAINE INVASIVE PLANTS

Asiatic Bittersweet

Celastrus orbiculata
(Staff-tree Family)

Threats to Native Habitats

Asiatic bittersweet poses a serious threat to other species and to whole habitats due to its aggressive habit of twining around and growing over other vegetation. This plant has a high reproductive rate, long-range dispersal mechanisms, and the ability to root-sucker. The vines can strangle tree and shrub stems. All types of plants, even entire plant communities, can be over-topped and shaded out by the vine's rapid growth. Nearly pure stands of this vine are sometimes found in affected areas. Recently it has been discovered colonizing sand dunes in Connecticut and Rhode Island.

Description

Asiatic bittersweet is a deciduous vine that climbs by means of twining about a support. The branches are round, hairless, light to dark brown, and have noticeable lenticels (surface "bumps"). The outer surface of its roots is characteristically bright orange. Leaves are arranged alternately on the stems and vary in shape. They are typically oval with a pointed tip and range from one to five inches in length. Flowers are small, greenish-yellow, and grow in clusters from the joints between the leaves and the stems. The fruits are pea-sized capsules, which change in color from green to bright yellow as they mature. When the fruit is ripe the capsule splits open, revealing a bright orange-red berry within. Heights in excess of 50 feet have been recorded in the South. Asiatic bittersweet closely resembles our native American bittersweet (*Celastrus scandens*). The two can be distinguished by examining the locations of the clusters of flowers or fruits on the stems. American bittersweet's flowers and fruits are always found in clusters at the ends of stems, while Asiatic bittersweet's flowers are found in the joints where the leaves grow out of the stems. For accurate identification contact a natural resource professional.



Asiatic Bittersweet (photo by John A. Lynch, courtesy of the New England Wild Flower Society)

Habitat

Asiatic bittersweet can grow in a variety of habitats ranging from floodplain forests to dry, rocky slopes. It has an affinity for forest edges where it has the greatest opportunity to twine around and grow over other plants while receiving lots of light. It is commonly found along fencerows, roadsides, power lines, and in abandoned fields. It is also successful in open woods, including tree plantations. It is dispersed by birds that eat the bright red fruits in winter. It is also dispersed by humans who use dry fruiting stems in flower arrangements, and then dispose of them on compost and brush piles.

Distribution

Asiatic bittersweet is native to East Asia. It is thought to have been introduced to eastern North America in the mid-1800s for use as an ornamental. In some states it has been planted for highway landscaping as well as wildlife food and cover. It has escaped into the wild in the majority of the states where it is cultivated. In Maine, Asiatic bittersweet has been documented in five counties. It probably occurs in more, but has been under-collected due to a general lack of interest in weedy species.

Control

Small patches can be hand-pulled. Take care to remove the entire root to prevent resprouting. Low patches have been successfully removed by cutting the vine and treating the regrowth with a triclopyr herbicide. Control is more successful in taller patches when cut stems are immediately painted with triclopyr or glyphosate. This plant has a substantial seedbank, and complete eradication may depend on repeating control methods for several years.

References:

Josselyn Botanical Society of Maine. 1995. *Checklist of the Vascular Plants of Maine, Third Revision*. Orono, ME: Maine Agricultural and Forest Experiment Station.

Dreyer, G.D. 1987. *Element Stewardship Abstract for Celastrus orbiculata*. Arlington, VA: The Nature Conservancy in collaboration with the International Network of Natural Heritage Programs and Conservation Data Centers. Natural Heritage Databases.

The Nature Conservancy of Vermont. 1998. *Invasive Exotic Fact Sheet: Asiatic Bittersweet*. Montpelier, VT.

Gleason, H.A. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. New York: New York Botanical Garden.

For more information or for a more extensive list of references on invasive species contact:

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