



## Invasive Plant Atlas of New England

### Catalog of Species Search Results



[:: Catalog of Species Search](#)



## *Celastrus orbiculatus*

(Oriental bitterweet  
Asiatic bitterweet  
Round-leaved bitterweet )

[Common Name\(s\)](#) | [Full Scientific Name](#) | [Family Name Common](#) | [Family Scientific Name](#) | [Images](#) | [Synonyms](#) | [Description](#) | [Similar Species](#) | [Reproductive/Dispersal Mechanisms](#) | [Distribution](#) | [History of Introduction in New England](#) | [Habitats in New England](#) | [Threats](#) | [Early Warning Notes](#) | [Management Links](#) | [Documentation Needs](#) | [Additional Information](#) | [References](#) | [Data Retrieval](#) | [Maps of New England Plant Distribution](#)

### COMMON NAME

Oriental bitterweet  
Asiatic bitterweet  
Round-leaved bitterweet

### FULL SCIENTIFIC NAME

*Celastrus orbiculatus* Thunb.

### FAMILY NAME COMMON

Staff-Tree family

### FAMILY SCIENTIFIC NAME

Celastraceae

### IMAGES



Vine growing up trunk

[Close-up of staminate flowers](#)  
[Close-up of staminate flowers](#)



Close-up of pistillate flowers



Incursion



Close-up of fruits



Fruit in tree



Seedlings

## NOMENCLATURE/SYNONYMS

**Synonyms:** *Celastrus articulatus* Thunb.

## DESCRIPTION

### Botanical Glossary

*Celastrus orbiculatus* is a dioecious (or polygamodioecious), perennial, deciduous vine that can grow up to 17.3 m (60 ft.). The stems of *Celastrus orbiculatus* have dark brown to brown striated bark. The twigs are dark brown, brown or light gray and are smooth and glabrous. Stems can reach 10 cm (4 in.) in diameter. The buds along the stem are axillary. The leaves are alternate and spiral evenly around the stem. They have a light green color and are widely elliptic, ovate to obovate, or circular.

The flowers, which bloom in May to early June, are axillary in their position on the stem. There are 3-4 small greenish flowers per inflorescence and they are 1.8-4 mm (0.07-0.15 in.) long and 2.2-5.5 mm (0.1-0.2 in.) wide. The fruits of *Celastrus orbiculatus* are produced from July to October, are globose in shape, 6-9 mm (0.24-0.35 in.) long and 7-10 mm (0.28-0.4 in.) wide, and are yellow in color with a fleshy red aril surrounding them. The fruits split open at maturity revealing 3 red-orange axils that contain the seeds. The yellow ovary walls begin to fall from the fruits after frost.

Page References Bailey 631, Fernald 984, Gleason & Cronquist 328, Holmgren 308, Magee & Ahles 716, Newcomb 326. See reference section below for full citations.

## SIMILAR SPECIES

*Celastrus scandens* L. (American bittersweet)

There is also hybrid between *C. orbiculatus* and *C. scandens*

*Celastrus orbiculatus* is often confused with native bittersweet (*C. scandens*). The main feature that differentiates between the two plants is the location of the inflorescence. The inflorescence of *C. scandens* is located terminally and not axillary on the stems. Another feature (which is not always consistent) is the color of the ovary walls. In the fall the ovary walls of *C. orbiculatus* are yellow while those of *C. scandens* are a darker orange color that does not contrast as much with the red arils.



Close-up of infructescence of *C. scandens*



Left: *C. scandens*, Right: *C. orbiculatus*, Center: Hybrid

## REPRODUCTIVE/DISPERSAL MECHANISMS

The fruits of *Celastrus orbiculatus* are most often dispersed by birds. If the plant is near water, the fruit can float and be moved downstream.

## DISTRIBUTION

*Celastrus orbiculatus* is native to East Asia: Japan, Korea and China. It is presently reported from Louisiana to Maine and West to Iowa. It is established in all the states of New England.

## HISTORY OF INTRODUCTION IN NEW ENGLAND

*Celastrus orbiculatus* was introduced to the United States from China as an ornamental around 1860. It reached Connecticut as early as 1916, and was collected from Massachusetts in 1919 and New Hampshire in 1938.

## HABITATS IN NEW ENGLAND

Abandoned Field  
 Agricultural Field  
 Coastal Beach or Dune  
 Early Successional Forest  
 Edge  
 Pasture  
 Planted Forest  
 Railroad Right-of-Way  
 Roadside  
 Salt Marsh  
 Utility Right-of-Way  
 Vacant Lot  
 Yard or Garden

*Celastrus orbiculatus* grows most profusely in the sun, but can tolerate dense shade. It grows in disturbed woodlands, fields, along the coast and in salt marshes. Fence rows (where birds sit and disperse the seeds), roadways and railroads are also prime habitat for *C. orbiculatus*. It will grow over anything that it comes upon.

## THREATS

*Celastrus orbiculatus* causes major damage to native plants by girdling. Mechanical damage of trees and other plants is also caused by the additional weight added onto the branches, causing the branches to break. The vigorous growth of the vine also shades other species. Another threat is the possibility of it displacing American bittersweet (*C. scandens*). *Celastrus scandens* does not exhibit this aggressive growth, but it can hybridize with *C. orbiculatus*. People often use *C. orbiculatus* for wreathes and floral arrangements in the fall because of its colorful fruits. Oftentimes, after the plant is used it thrown away, and the fruits are dispersed this way.

## MANAGEMENT LINKS

[Illinois Natural History Survey](#)

General description and management guidelines

[Plant Conservation Alliance](#)

Fact sheet including management information

[The Nature Conservancy](#)

[The Connecticut Invasive Plant Working Group Invasive Plant Management Guide](#)

Comprehensive management information

## DOCUMENTATION NEEDS

Documentation required: Photograph of habit, inflorescence.

Best time for documentation: Summer, fall.

## ADDITIONAL INFORMATION

[Integrated Taxonomic Information System](#)

Taxonomic information about the species

[The PLANTS Database](#)

General information

[Plant Conservation Alliance](#)

General information and management

[Department of Conservation and Recreation - Virginia Native Plant Society](#)

General information

[The Nature Conservancy](#)

General information including control

[Brooklyn Botanic Garden](#)

General information including a photograph

[Salisbury University Arboretum](#)

Photographs

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## DATA RETRIEVAL

Select a task by clicking the radio button and then click "Submit Selection."

- Formatted display as table
- Export as comma-delimited text file

## MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

Select a study area by clicking the radio button and then click "Submit Selection."

- The whole New England area
- One or more states
- One or more counties
- One or more towns (county sub-divisions)

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