

New Invaders Watch Program

Early Detection and Rapid Response Network

COMMON NAME: **JAPANESE BARBERRY**

SCIENTIFIC NAME: *Berberis thunbergii*

FAMILY: Berberidaceae

ORIGIN: Japan

US INTRODUCTION: First introduced in 1875 in the U.S as an ornamental. Reported to be invasive throughout the northeastern U.S. from Maine to North Carolina and west to Wisconsin and Missouri.

MAJOR PATHWAYS OF SPREAD:

- Seeds dispersed by birds and other animals
- Creeping roots and tip rooting branches
- Ornamental use

IDENTIFICATION CHARACTERISTICS:

- Spiny deciduous shrub that grows between 3 and 6 feet tall. Branches are brown and deeply grooved with simple spines.
- Leaves small ½ - 1 ½ inches long blue green leaves shaped like small spatulas.
- Flowers pale yellow in spring, occur the entire length of the stem in clusters of two to four. The bright red fruit is about 1/3 of an inch long and matures between July and October, and remains on the plant through winter.
- Grows well in full sun to deep shade and forms dense stands in closed canopy forests, open woodlands, wetlands, and fields.

NATIVE LOOK-ALIKES:

American Barberry (*Berberis canadensis*): Has branched thorns, producing 1-3 thorns in a cluster. Unlike Japanese Barberry which has individual thorns along its branches. The leaves of American Barberry also appear to be toothed, while Japanese Barberry has smooth leaf edges. Rare in Illinois, occurs more in Appalachian Mountains.



American Barberry

ADDITIONAL RESOURCES:

Invasive Plant Atlas of the United States.
<http://www.invasiveplantatlas.org/subject.html?sub=3010>

Alien Plant Invaders of Natural Areas.
<http://www.nps.gov/plants/alien/pubs/midatlantic/beth.htm>

Illinois Wildflowers.
<http://www.illinoiswildflowers.info/trees/plants/jpbarberry.htm>



Japanese Barberry Bush



Japanese Barberry Flowers



Japanese Barberry Fruit



Japanese Barberry

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COMMON NAME: **BURNING BUSH**

ALTERNATIVE NAMES: Winged Burning Bush, Winged Euonymus, Winged Spindletree, Winged Wahoo

SCIENTIFIC NAME: *Euonymus alatus*

FAMILY: Celastraceae

ORIGIN: Northeast Asia and central China

US INTRODUCTION: Introduced to the U.S around 1860 as an ornamental plant for landscaping. Found from New England to northern Florida and the Gulf Coast. Also found in Illinois.

MAJOR PATHWAYS OF SPREAD:

- Birds
- Ornamental use

HABITAT: Found in open woods, in areas of shade to full sun, prairies, and pastures. Can tolerate dry to moist soils.

IDENTIFICATION CHARACTERISTICS:

- Multi-stemmed shrub with winged branches. Grows 5 to 20 feet tall.
- Leaves paired and deciduous, dark green, bottom is a bright red purple in the fall.
- Flowers green and inconspicuous, occurring in late spring. Red purple fruits mature during summer.

NATIVE LOOK-ALIKES:

Native Strawberry Bush (*Euonymus americanus*): Stems are green and not winged, leaves do not change to red purple



T.Harville

Euonymus americanus

ADDITIONAL RESOURCES:

Invasive Plant Atlas of the United States.
<http://www.invasiveplantatlas.org/subject.html?sub=3023>

Alien Plant Invaders of Natural Areas.
<http://www.nps.gov/plants/alien/pubs/midatlantic/eual.htm>



KENPEI

Burning Bush Flowers



JP. Grandmont

Burning Bush Fruit



C. Barton

Burning Bush



B.Johnson

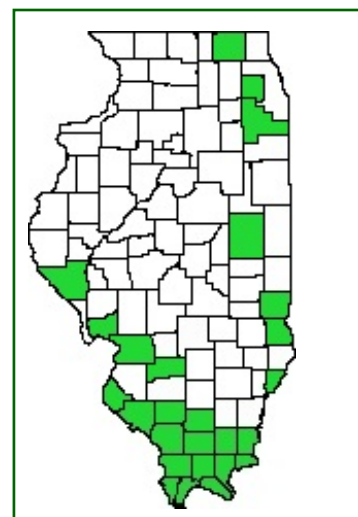
Euonymus alatus

Japanese Stiltgrass - *Microstegium vimineum*

Japanese stiltgrass is an annual grass considered to be one of the most aggressive invasive plants in forestlands in southern Illinois. Several new populations have recently been found in northern Illinois. Be on the lookout for it and report any suspected infestations in southern or central Illinois to the Illinois Invasive Species Campaign at chris.evans@illinois.gov or in northern Illinois to the New Invaders Watch Program at <http://newinvaders.org>.

Impacts

Japanese stiltgrass can quickly form dense stands that shade and compete with native understory plants, lowering native species diversity. It can quickly become the dominant vegetation. With its high shade tolerance, stiltgrass has the potential to invade high-quality mature forests, once thought to be relatively resistant to invasion. Stiltgrass has no value as a wildlife food. The dense thatch of older infestations can be a fire hazard and may impede tree seedling establishment. Established infestations are very difficult to remove and spread rapidly. For further information on the impacts and management of Japanese stiltgrass, view the presentations from the 2010 Stiltgrass Summit at www.rtrcwma.org/stiltgrass.



Illinois Distribution

Diagnostic Characteristics

Multi-stemmed growth



Bright thatch



Leaves with silver midrib



Infestation



Identification

Stiltgrass is a weak rooted and sprawling grass that can grow to heights of 6 feet, though it is usually much shorter. Taller plants usually lie flat along the ground or propped up against other vegetation. Plants usually have multiple weak stems. The leaves are short and wide with smooth edges and a noticeable silvery midrib on older leaves. The flowers and fruits are borne on thin, often branched spikes on the top of a delicate stem. In the fall, the tops of the plant turn purple or brown in color, giving this plant one of its other common names, browntop. In winter, the thatch is a very noticeable bright tan to orange color.

Habitat

Japanese stiltgrass can be found in a variety of habitats. It is most often an invader of moist forests, but can also be found on roadsides, ditches, field edges, old fields, upland forests, wet meadows, and intermittent streams. The seeds are easily spread by equipment, contaminated soil, mud on hikers boots, and flood waters. Infestations are likely to start along a trail, roadside, or waterway and then rapidly move throughout the area. Stiltgrass is often accidentally introduced or encouraged by practices that disturbed the soil or increase light into a forest, such as logging, prescribed fire, trail building, ditch maintenance, or roadside mowing.

Stiltgrass is actively spreading throughout Illinois. Be on the lookout for the high priority invasive species



Japanese Chaff Flower - *Achyranthes japonica* (Miq.) Nakai

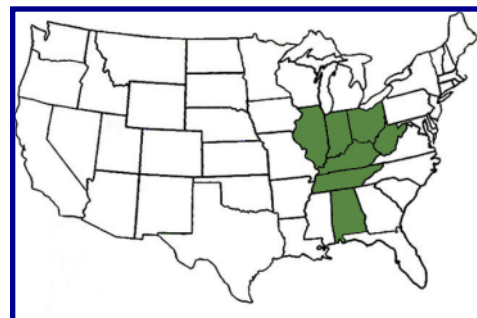


Flowering Plant

A new exotic species has been found in southern Illinois. Japanese chaff flower, *Achyranthes japonica* (Amaranthaceae), is a perennial herbaceous plant that is native to Eastern Asia. It was first found in the United States in eastern Kentucky in the early 1980s and has quickly spread along the Ohio River and tributaries. It is currently found in seven states (Alabama, Illinois, Indiana, Kentucky, Ohio, and Tennessee). In Illinois, it was first found in 2008 in Massac County, but has since been found in Pulaski and Williamson counties.

Japanese chaff flower is easy to identify. Plants can be up to 2 meters tall (particularly in sunny areas). The leaves are opposite, simple, and entire along the margins. The flowers occur on erect spikes at the end of the stems and upper branches. Flowers are small, lack petals, and occur in a tight cluster at the end of the spike.

The flowers diverge at nearly a right angle from the spike, giving the flowers somewhat of a bottle-brush look. When the fruit are formed, the spikes elongate greatly and the fruit lay flat against the spike. Each fruit has a pair of stiff bracts that aid the fruit in attaching to clothes or fur.



US Distribution

Japanese chaff flower seems to grow best in areas with partial sun and moist soils, but can also grow in heavily shaded and drier environments. Dense infestations have been found in bottomland forests, riverbanks, field edges, and ditches.

This plant can produce an abundance of seed that is easily transported by sticking to shoes, clothing, or animal fur via the stiff, recurved bracts.

If you plan on hiking in areas where this plant is present, please be sure to thoroughly clean all seeds off of your clothing and pet's hair. If you find any infestations of Japanese chaff flower in Illinois, please contact Chris Evans at 618-998-5920 or rivertoriver@gmail.com.



Seeds



Seed head



Leaves



Infestation

Developed by Christopher Evans, River to River Cooperative Weed Management Area, September 2010

The CWMA is a partnership between the Illinois Department of Natural Resources Illinois Department of Agriculture Illinois Department of Transportation Shawnee National Forest Crab Orchard National Wildlife Refuge Cypress Creek National Wildlife Refuge USDA Natural Resource Conservation Service USDA Animal and Plant Health Inspection Service University of Illinois - Extension Southern Illinois University at Carbondale The Nature Conservancy Shawnee Resource Conservation & Development Area