



# Invasive Trees & Shrubs



*Ailanthus altissima*, Tree of Heaven



*Elaeagnus umbellata*, Autumn Olive



Tartarian Honeysuckle



Amur Honeysuckle



*Lonicera* sp., Bush Honeysuckles



Morrow's Honeysuckle



*Paulownia tomentosa*, Empress Tree



*Pyrus calleryana*, Callery /Bradford Pear



*Berberis thunbergii*, Japanese Barberry



*Rosa multiflora*, Multiflora Rose



*Ligustrum* sp., Privets





**Alternate Names:**

Ailanthus; Shumac; Stinking sumac; Chinese sumac

**Height:** 50 – 60 feet

**Origin:** China and Taiwan

**Habitat:** Full sun

**Distribution:** 42 states through continental U.S. and Hawaii

**Ecological Threat:**

Contains chemicals which suppress the growth of native plants

**Reproduction:** Seeds and rhizomes

**Dispersal:** Seeds are dispersed by wind; vegetative sprouting is a result of breakage or cutting

**Control:** Herbicide

**Native Alternatives:**

Staghorn sumac (*Rhus typhina*); Black walnut (*Juglans nigra*)



## Tree of Heaven

*Ailanthus altissima* (Mill.) Swingle

**General:** Tree of Heaven is a fast growing tree that was introduced into the U.S. in the 1740s in Pennsylvania. These trees are found in urban, suburban and rural settings. The Tree of Heaven damages structures and threatens agricultural and natural ecosystems. Tree of Heaven contains allelopathic chemicals which suppress the growth of other plants.

**Identification:** Alternate, compound leaves are one to four feet long with up to 25 smaller leaflets. They emit an unpleasant, skunky odor when crushed and leave shield-shaped leaf scars after the fall leaf drop. Leaflets have smooth edges with 1 or 2 teeth at the base. Seeds are green or pink in summer. They turn dry and papery in fall and may remain on the tree over winter. The Tree of Heaven is often confused with staghorn sumac which is a native tree.

### Tree of Heaven



Smooth leaflets with 1 or 2 teeth at base



Shield-shaped leaf scar



Dry, papery seed clusters

### Staghorn Sumac



Leaflets with small teeth



Horseshoe-shaped leaf scar



Large, red seed clusters

**Reproduction:** Tree of Heaven produces large amounts of viable seed. Vigorous resprouting can occur as a result of injury such as breakage or cutting.

**Control Methods:** Herbicide must be used to control Tree of Heaven as cutting/felling by itself will cause the tree to produce shoots from the stump and rhizomes.

**References:** USDA Plants Database (<https://plants.usda.gov>); Maryland Invasive Species Council (<http://www.mdinvasivesp.org>); Swearingen, J., B. Slattery, K. Reshetiloff, and S. Zwicker. 2010. Plant Invaders of Mid-Atlantic Natural Areas, 4<sup>th</sup> ed. National Park Service and U.S. Fish and Wildlife Service. Washington, DC. 168pp

**Alternate Names:** Bradford pear

**Height:** 30 – 50 feet

**Origin:** China and Vietnam

**Habitat:** Full to partial sun

**Distribution:** Eastern U.S. from New Jersey to Illinois and south to Texas

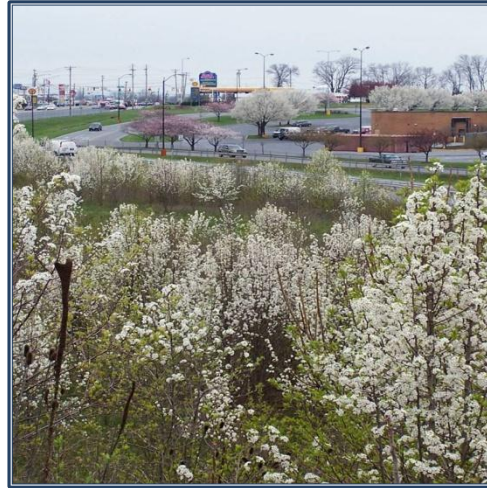
**Ecological Threat:** Crowds out native species that can't tolerate deep shade or compete for space

**Reproduction:** Fruits/seeds and root sprouts

**Dispersal:** Seeds are spread by birds and other small mammals

**Control:** Herbicide and mechanical removal

**Native Alternatives:** Common serviceberry (*Amelanchier arborea* var. *arborea*); Allegheny serviceberry (*Amelanchier laevis*); Washington hawthorn (*Crataegus laevigata*)



***Callery Pear***

*Pyrus calleryana* Decne.

**General:** Callery Pear was introduced into the U.S. in the early 1900s for research and as rootstock for common pear trees. It gained popularity as an ornamental tree in the late 1950s. Several sterile (does not self-pollinate) cultivars were developed. The introduction of additional Callery Pear varieties allowed for cross pollination and the production of viable seed.

**Identification:** Callery Pear reaches 30 to 50 feet high at maturity. Small white flowers bloom in early spring and often appear before the leaves are out. Leaves are 1 ½ to three inches long, shiny, dark-green and leathery with small round-toothed margins. The leaves turn deep red or purple in the fall. Small fruits mature in the fall and are hard, brown, and almost woody. Callery pears have an upright growth habit with tight branching angles, making them susceptible to breaking and splitting.



*Dark-green, leathery leaves with small round-toothed margins*



*Small, hard, and brown fruits*

**Reproduction:** Callery Pears produce large amounts of seed which is spread by birds and small mammals. Callery pears also develop root sprouts which produce new trees.

**Control Methods:** Do not plant Callery Pear or other cultivars. Seedlings can be pulled when the soil is moist. Large trees should be cut down and the stumps immediately treated with herbicide.



**Alternate Names:** Rambler rose; multiflowered rose; baby rose; Japanese rose; seven-sisters rose

**Height:** 10 – 15 feet

**Origin:** Japan, Korea, and Eastern China

**Habitat:** Thrives in variety of habitats including fields, pastures, forests, prairies, and roadsides.

**Distribution:** Throughout the eastern half of the United States and in Washington and Oregon

**Ecological Threat:** Forms dense thickets which displace and prevent native vegetation from establishing; disrupts nesting of native birds

**Reproduction:** Seed and vegetatively

**Dispersal:** Seed is dispersed by birds; tips of arching canes can form new roots and plants where they contact the ground

**Control:** Herbicide; manual and/or mechanical removal

**Native Alternatives:** Red chokeberry (*Photinia pyrifolia*); False indigo bush (*Amorpha fruticosa*); Common buttonbush (*Cephalanthus occidentalis*); Mountain laurel (*Kalmia latifolia*)



barriers or screens for headlight glare.

## ***Multiflora Rose***

*Rosa multiflora* Thunb.

**General:** Multiflora Rose is a multi-stemmed shrub or sometimes climbing vine. It was introduced to the eastern U.S. in the 1860s as rootstock for ornamental roses. In the 1930s, the U.S. Soil Conservation Service promoted its use for erosion control and as a 'living fence' to confine livestock. More recently, multiflora rose had been widely used in highway medians to act as crash

**Identification:** Leaves are divided into five to 11 sharply toothed leaflets. Leaf stalks have fringed stipules (paired wing-like structures). Clusters of showy, fragrant, white to pinkish flowers bloom in May.



*Sharply toothed leaflets*



*Fragrant, white flowers*

**Reproduction:** Multiflora Rose reproduces by seed as well as by forming new plants where the tips of arching canes touch the ground and form roots. Each plant produces an estimated 1 million seeds per year which remain viable in the soil for up to 20 years.

**Control Methods:** Control of Multiflora Rose is possible using herbicide and manual or mechanical removal. Best results will be achieved from a combination of methods however. Frequent, repeated cutting or mowing can be very effective. Applying herbicide to freshly cut stems, regrowth, or foliage is effective, particularly if done solate in the growing season.