

Alien Invasive Plants: Information for Friends of Pocahontas

Native species of plants occur in a particular place without human intervention. Generally accepted as those that were here before European settlement.

Non-native (alien or exotic) species were introduced by people to places they don't occur and would likely never occur naturally. There are many important alien species – like wheat and soybeans. There is an estimated 4000 alien plant species established in the U.S. Of these, about 400 species have become invasive. We currently have about 90 alien plant species considered to be invasive in Virginia.

Invasive species cause (or will likely soon cause) harm to the environment, the economy, or to humans.

Common alien invasives in Pocahontas Park:

These are some of the most common species that we need to continue to locate and identify in the Park. We add these locations to a master database, and schedule them for treatment.

- ✓ Tree of Heaven (*Ailanthus altissima*)
- ✓ Princess Tree or Paulownia (*Paulownia tomentosa*)
- ✓ Mimosa or Silk Tree (*Albizia julibrissin*)
- ✓ Callery Pear ex. Bradford Pear (*Pyrus Calleryana*)
- ✓ Autumn Olive (*Elaeagnus umbellata*)
- ✓ Wineberry (*Rubus phoenicolasius*)
- ✓ Multiflora Rose (*Rosa multiflora*)

The following species are quite widespread, but we keep up with heavy infestations:

- ✓ Privet species (*Ligustrum* sp.)
- ✓ Chinese Lespedeza (*Lespedeza cuneata*)
- ✓ Japanese Honeysuckle (*Lonicera japonica*)
- ✓ Japanese and Chinese Wisteria (*Wisteria floribunda* and *W. sinensis*)
- ✓ Japanese Stiltgrass (*Microstegium vimineum*)
- ✓ Perilla mint or Beefsteak Plant (*Perilla frutescens*)

Sources are listed on final page.

Tree of Heaven, also Stinktree, Chinese Sumac, others (*Ailanthus altissima*)

A small to medium size tree, up to 80 ft. especially adapted to disturbed soil. Has rapid, vigorous growth. Dioecious (male or female trees), females are heavy seed producers. Establishes dense stands, has herbicidal effect on other plants. Leaves and stems have a strong unpleasant odor, sometimes compared with cat urine or rotted peanuts.

Leaves: large, alternate, compound, 1-4 ft. long with 11-41 leaflets. Leaflets are not toothed, but with one or two glandular teeth near the base.

Flowers/Seeds: large clusters of small yellowish flowers in June, male flowers with a foul odor. Large clusters of dry, narrow, one seeded winged fruits in September, may persist through winter.

Winter stems/twigs: stout with continuous yellowish pith. Large leaf scars, triangular or shield shaped with many bundle scars. False end buds.

Tree of Heaven may be confused with Sumacs, Butternut and Walnut, or with Ash and Hickory.



Princess Tree also Royal Paulownia, Empress Tree (*Paulownia tomentosa*)

Rapidly growing medium sized deciduous tree, up to 60 ft. Tolerates infertile and acid soils, and drought conditions. Adapts to many habitats and can sprout prolifically. Twigs are stout, green to brown.

Leaves: opposite (paired), simple, large heart shaped leaves, may have one or two shallow lobes or teeth. Leaves are 6 in. to 13 in. long, hairy on the upper surface.

Flowers/Fruit/Seeds: flowers are in upright clusters of fragrant, violet blossoms. Flowers occur prior to leaf-out. Fruit is clusters of four-compartmented oval capsules (pecan-like), each with thousands of tiny winged seeds. Dry capsules may persist all winter.

Paulownia may be confused with Catalpa.



Silk Tree or Mimosa (*Albizia julibrissin*)

A small hardy deciduous tree (10 to 50 ft.) that grows in disturbed areas and in a variety of habitats. It re-sprouts vigorously and often has multiple stems. The bark is light brown, fairly smooth and thin, and usually has lens-shaped spots along the stem.

Leaves: alternate growth, double pinnately compound. May be described as feathery and fern-like foliage. Leaves are 5 – 8 in. long with 6 to 16 major leaflets. Minor leaflets are small, up to ½ in.

Flowers/Fruit: flowers are pink and fragrant, looking like powder puffs or pom-poms. Flowering occurs in early summer. Fruit is a flat bean-like pod, 3 – 6 in.



Callery Pear – including Bradford Pear (*Pyrus Calleryana*)

A medium sized deciduous tree (up to 50 ft.) with a wide form (may be 20 to 30 ft. wide). Can spread rapidly and form dense thickets which can crowd out other plants. Copious seed production is spread widely by birds and possibly small mammals. Young trees may be thorny.

Leaves: alternate, simple, broadly ovate to ovate, 1 ½ to 3 in. long. Leaves are shiny dark green and leathery with small round-toothed margins. They are scarlet and purple hued in the fall.

Flower/Fruit: white flowers with 5 petals (about 1 in.) are on in spring before leaves. Fruit are small, brown, and hard – almost woody.

These can be easily confused with apple, crabapple, or basswood.



Autumn Olive (*Elaeagnus umbellata*)

This is a drought tolerant shrub that grows to 20 ft. It thrives in a variety of soil and moisture conditions. The leaves, buds, and stems have a dense covering of silvery to rusty scales.

Leaves: alternate, deciduous, egg shaped to lance shaped, with smooth edges. They are dull green above, often with brown scales beneath.

Flowers/Fruit: aromatic, pale yellow flowers with 4 petals, pointed at the tips, form in August through October. The small abundant fruit is red-brown to pink, dotted with brown to silvery scales, and is widely spread by birds and mammals.



Wineberry – also Wine Raspberry (*Rubus phoenicolasius*)

This is a multi-stemmed shrub with spiny stems covered with reddish glandular hairs. It forms dense shady thickets.

Leaves: alternate compound leaves, with 3 leaflets having toothed margins. The terminal leaflet is largest, all are white underneath.

Flowers/Fruit: white flowers with 5 petals occur in spring. Bright red edible berries form in early summer. Wineberry spreads by seed dispersal and by strong vegetative growth when cane tips reach the ground.



Multiflora Rose (*Rosa multiflora*)

A multi-stemmed shrub (sometimes climbing vine) with arching stems and recurved thorns. It grows aggressively and forms dense thickets that prevent most native plants from establishing.

Leaves: these compound leaves have 5 to 11 sharply toothed leaflets with paired wing-like structures (fringed stipules).

Flowers/Fruit: clusters of fragrant, white to pinkish, 1 in. wide flowers develop in May. Small bright red rose hips develop during the summer and persist through winter.

The plant spreads by heavy seed production, and from the cane tips rooting where they touch the ground. Seed can remain viable in the soil for up to 20 years.



Privet species

Introduced since the 1800's, mostly from Japan, China, Korea. There are no native Privets. Common in yards, landscapes, and as hedges.

Deciduous or semi-evergreen shrub up to 20 ft. Multiple stems with long leafy branches. Forms dense thickets.

Leaves are opposite, simple, 1 – 3 in., oval to oblong. Fruit is small blue-black to black oval to spherical drupe. Widely spread by birds.

Chinese Lespedeza

Introduced from Eastern Asia in late 1800's, mainly for erosion control but also for quail habitat.

Warm season perennial herbaceous plant, mostly erect, 3 – 5 ft. Forms thick dense mono-cultures, with an extensive seed bank. Some flat bristles.

Each leaf is made up of 3 narrow oblong pointed leaflets covered in dense, flattened hairs. Leaves may have a grayish green to silvery appearance.

Japanese Honeysuckle

Introduced to New York from Eastern Asia around 1806 for ornamental use and for erosion control.

This is a twining vine, reddish brown to light brown, with opposite leaves. Leaves are ovate to oblong ovate in shape, 1 – 3 inches long by ½ - 1 ½ inches wide. Smooth margins, except for young leaves.

Flowers are white to yellow, and fragrant. Seeds in fall, paired, black, about ¼ inches in diameter.

Japanese and Chinese Wisteria

Introduced from Japan and China, 1830 and 1916, as ornamental plants.

Hardy, woody twining vines. They twine tightly around tree trunks and branches, cutting through bark and causing death by girdling. Japanese Wisteria climbs upwards in a counter-clockwise direction, the Chinese variety climbs clockwise.

Japanese – leaves are alternate, compound, 8-12 in. long, 13-17 leaflets. Flowers (April before full leaf expansion) are violet to blue in hanging clusters of 1-3 ft. long.

Chinese – leaves are alternate and compound, 6-10 in. long, 9-11 leaflets. Flowers (also April) are lavender to purple, in hanging clusters up to 12 in. long.

Japanese Stiltgrass

Introduced into Tennessee in 1919 from Eastern Asia. Likely used as packing material for porcelain goods.

Looks like small delicate bamboo. Mature plants grow to 2 – 3 ft. in height. May cover the ground in large areas.

Leaves are pale green and lance shaped, asymmetrical, alternate. Leaves are approx. 3 inches long with a shiny mid-rib.

Perilla Mint (also Beefsteak plant)

Introduced from Asia, this is a small, freely branching annual herb. Grows 18 – 30 inches high.

Stems are 4-sided, covered in short hairs. Leaves are opposite, ovate, green to purple with toothed margins. Crushed leaves have a musky, mint-like odor.

Flowers are small, bell shaped, white and purple.

Sources of information and pictures:

USDA National Invasive Species Information Center (Website)

Plant Invaders of Mid-Atlantic Natural Areas, National Park Service and U.S. Fish and Wildlife Service

Invasive.org (Website)

Invasive Plant Species in Central Virginia (presentation), Irene C. Frentz, VA Dept. of Conservation and Recreation Division of State Parks

Note: This handout is intended to assist Friends of Pocahontas State Park in identifying some common invasive species of concern in the Park. Areas with these species will be verified and added to a database for possible future eradication efforts. Dale Baker, 09/18/2019