

## Norway Maple (*Acer platanoides*)



The Norway maple is a large (up to 100 ft.) deciduous tree with sugar maple-like leaves and yellow flowers. This Eurasian native is often found in urban areas, like parks and gardens. Its shallow roots and densely shady foliage and can outcompete nearby natives, impeding land management. Its wood is somewhat weak, so is prone to breaking and therefore can damage nearby structures during storms, impacting training. It is best controlled mechanically and chemically.

**Look-A-Likes:** Norways can resemble sugar maples. Sugar maple leaves have sharper points and lack milky leaf stalk sap. Sugar maple bark grows shaggy, plated /w age versus tight, interlaced ridgy bark of Norways.

## Burning Bush (*Euonymus alatus*)



Burning bush AKA winged euonymus is a large (up to 20 ft. tall) deciduous shrub with bright red fall foliage and distinctive corky stem swings. Native to east Asia, it is found in a variety of habitats, such as gardens, roadsides, and disturbed areas. On base, it is most commonly found near Lake Frederick. It outcompetes native plants and forms dense thickets which can inhibit movement and visibility and impede training. All parts of this plant are **toxic**. Chemical controls are most effective.

**Look-A-Likes:** Native species like the closely related wahoo euonymus as well as high-bush blueberry, bush honeysuckles and chokeberry can resemble burning bush but all of them lack its corky wing stems.

**Prickles, Spines & Thorns:** Prickles project from skin tissues like rose or raspberry; spines from leaf and stipule tissue like cacti, barberry or water chestnut; and thorns from stem tissue like autumn olive or locust.

## FAQ - AN INVASIVE PLANT PRIMER

**Q: What are invasive species? A:** Invasive species are non-native species that harm environments and human activities. West Point has many invasive plant species.

**Q: How do invasives spread? A:** Invasives spread to new areas or within an area by wildlife, wind, and water but often by human activities like construction, agriculture, recreation.

**Q: How do invasives establish? A:** Invasives thrive in new areas due to high seed production, no predators/competitors, fast growth, dense structures, and chemical use (allelopathy).

**Q: How do invasives harm ecosystems? A:** Invasive plants can alter and impair ecosystem composition, structure and function, reducing biodiversity and harming the other plants and animals that live in those invaded ecosystems.

**Q: How do invasives harm people? A:** Invasives harm utilities and infrastructure, human health (toxicity, puncture, tripping etc.) and training and recreation by limiting access.

## FAQ - INVASIVE MANAGEMENT

**Q: What can be done? A:** Prevention, or keeping invasives from being spread to and in areas, is the best form of management. But if present, treatment may be possible via:

**Mechanical means:** Mechanical removal means the physical removal of plants. Methods include cutting, mowing, girdling, pulling, burning, matting, and drowning cut stems.

**Chemical means:** Herbicides or pesticides can be used to kill targeted plants. Chemicals are researched and deployed by professionals to target invasives in limited scope.

**Biological means:** The use of living organisms, usually from the invasive home range, to fight invasive plant growth. Host specificity is critical. Never release any animal or plants.

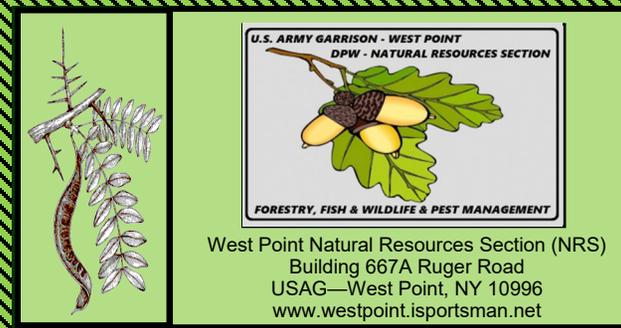
At West Point, allow Natural Resources or Roads & Grounds or pest management to handle invasive treatment in non-residential areas, both on and off Main Post.

## FAQ - WHAT CAN I DO?

**Q: What can readers do? A:** While certain means of invasive species control is best left to land managers, prevention and response is a community effort. You can learn, teach and act.

- 1. Learn** — Using this brochure and other resources, learn more about these and other invasive species, how to identify these plants, and how these plants are spread.
- 2. Teach** — Share this and other information with others to help them identify and learn about these plants and what can be done to prevent their spread.
- 3. Act** — Stop the Spread. Check clean clothing, pets, equipment and vehicles if in or near invasive stands. Stay on established roads, trails and avoid infested areas.

# INVASIVE TREES & LARGE SHRUBS OF THE WEST POINT MILITARY RESERVATION



# INVASIVE TREES & LARGE SHRUBS

Invasive species are non-native species that harm the environment and interfere with human activities. West Point has many invasive plants that can harm both our ecosystem and the military mission. Proper management of these plants is imperative and identification is a critical first step toward preventing new introductions and further spread of species already here. It is our goal in putting out this brochure - one in a four-brochure series on invasive plants - to help its readers, better understand common invasive species. This brochure contains a description of some of the invasive aquatic and wetland plants at West Point including pictures and a brief species summary including physical description, habitats, ecological and mission impacts, safety concerns, best management options and look-a-like species. We hope this brochure is useful but it is by no means comprehensive guide. For more information, see the NYSDEC website at <https://dec.ny.gov>.

**Hazards:** Some of these invasives and other plants have sharp spines, thorns, and prickles that may injure. In case of severe injury: **Keller Army Community Hospital 900 Washington Rd., West Point NY 10996.**

**Toxicity:** Some of these invasives and other plants are poisonous. Though most plants are not fatal, ingestion is still dangerous and unpleasant. If ingested, contact: **Poison Control Hotline, 800-222-1222**

**TOXIC**   **HAZARD**   **BOTH**   **NEITHER**

## Autumn Olive (*Elaeagnus umbellata*)



Autumn olive is a large shrub (up to 10 ft. tall) with oval leaves with silver undersides, small yellow-white flowers, and speckled silver/red berries. Native to eastern Asia, it was originally introduced into the U.S. to stabilize land and prevent erosion. Today, it can be found in open fields, forest edges, and along roadsides. It forms dense thickets that alter soil chemistry, which can kill native plants. It impacts training by obstructing movement and visibility. It can be removed with herbicides.

**Look-A-Likes:** Invasive Russian olive looks a lot like autumn olive but has narrower leaves. Silverberry also has silver leaves but drier, mealier fruits than AO. Bush honeysuckles look alike from afar but lack silver sheen.

**Trees VS Shrubs:** Trees are tall, woody plants usu. /w a single main trunk and distinct canopies. Shrubs are woody plants usu. /w multiple stems arising near the ground and are usu. shorter and bushier in appearance.

## Black Locust (*Robinia pseudoacacia*)



Black locust is a large (up to 100 ft tall) deciduous tree with dark brown/black bark, compound leaves, spines, and drooping, clustered flowers. Native to mid-western U.S., it thrives in open fields, disturbed areas and roadsides, forcing out natives by altering soil properties and forming dense thickets. Its **spines** make it a training hazard. It is **toxic** to humans and animals if consumed. Its wood shavings can also be an irritant, and cause contact dermatitis. It is best treated with chemicals.

**Look-A-Likes:** Black locust can be confused /w honey locust and tree of heaven. Honey locust has longer, twisted seed pods and branched (not paired) spines. TOH leaflets have small glandular base lobes than BL.

## American Buckthorn (*Rhamnus cathartica*)



American buckthorn is a deciduous shrub or tree (up to 20 ft. tall /w glossy, oval leaves, green-yellow flowers, and black fruit. Native to Europe, NW Africa, and W Asia, it grows in woodlands, disturbed areas, and roadsides in dense patches. It chokes out native plants, supports invasive earthworms and alters soil nutrients. It can hinder movement and visibility for training. It is **toxic** to humans if consumed, causing gastrointestinal issues. Chemical treatment is most effective.

**Look-A-Likes:** American buckthorn can resemble common and glossy buckthorn. Common buckthorn has small terminal spines that ABT lacks. Glossy buckthorn has smoother, shiny leaves /w curved side veins.

## Princess Tree (*Paulownia tomentosa*)



Princess tree or paulownia is a large (up to 80 ft tall) deciduous tree /w large heart-shaped leaves and purple, trumpet-like flowers clusters. An east Asian native, it grows quickly in disturbed areas, roadsides, and open fields in dense stands to outcompete natives. It harms training, recreation and management, through its root systems which disrupt soil stability and in, extreme cases, compromise structure stability. The control for it includes mechanical and chemical means.

**Look-A-Likes:** Northern catalpa is often confused with princess tree, but catalpa leaves are usually arranged in whorls or opposite pairs and has long bean-like pods instead of princess tree's round, woody capsules.

## Tree of Heaven (*Ailanthus altissima*)



Tree of heaven or ailanthus is a deciduous tree, up to 80 feet tall with sumac-like (*Rhus sp*) pinnate compound leaves and long clusters of small, green-yellow flowers. When crushed, its foliage can have a popcorn/roasted peanut scent. A Chinese native, it is found in disturbed sites like roadsides and forest gaps. Its aggressive root system can damage utilities and choke out natives. It also hosts the highly invasive and destructive spotted lanternfly. It is treated chemically and mechanically.

**Look-A-Likes:** TOH is confused /w walnut, sumac, and black locust due to their compound leaves. TOH leaves are smooth while walnut and sumac leaves are serrated. Black locust has rounder leaflets and spines.

**Spotted lanternfly:** SLF are invasive sap-feeding bugs that damage trees. They attack many species, esp tree of heaven. SLF gather in large groups, secrete a sticky honeydew as they feed that can attract yellowjackets.