

Invasive Plants in Pennsylvania

Glossy Buckthorn

Frangula alnus



Gil Wojciech, PFRI
www.forestryimages.org

Background:

Glossy buckthorn was first introduced into the United States in the mid 1800s as an ornamental. It has been used for hedges and wildlife habitat. A variety of cultivars are still sold in some nurseries.

Range:

Native to Eurasia, glossy buckthorn has invaded the Northeast and North-central regions of the United States.

Description:

Glossy buckthorn is a shrub or small tree growing to a height of 10 to 25 feet. The bark is gray or brown with closely spaced, white lenticels. The simple, alternate leaves are papery and dark green with a shiny upper surface and a dull, hairy or smooth lower surface. Pale yellow flowers emerge in small clusters from the leaf axils throughout the growing season. The round fruit is red to dark purple.



John M. Randall, The Nature Conservancy
www.forestryimages.org

Habitat:

This invasive can be found in a wide variety of habitats, including nutrient-poor soils, full sun and dense shade. It is particularly a problem in wetlands such as swamps, bogs, fens and wet meadows.

Biology and Spread:

Glossy buckthorn spreads by seed, recruiting birds that eat its prolific berries. Seeds may also be spread by water since fresh fruit can float for over two weeks. Dispersal may be significant in areas that receive frequent and extensive fall and winter flooding.

Ecological Threat:

Glossy buckthorn is particularly aggressive in wet areas, rapidly producing a dense shade that eliminates native plants. It also engages in species-specific allelopathy, changing the structure of native plant communities.



Leslie J. Mehrhoff, U. of Connecticut,
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How to Control this Species:

Physical

Seedlings less than three feet tall can usually be pulled by hand. Saplings can be removed with a weed wrench, but individuals with a large base diameter are best dealt with by cutting. The resulting stump should be dug out or treated with herbicide. Girdling is also effective.

If enough fuel is present, prescribed burns have a large impact on seedlings and the current year's seeds.

Be sure to remove and dispose of any ripened fruit from the restoration site.

Chemical

Herbicide applications may be done early in the season just after the trees have leafed out, but those conducted in the fall or early winter appear to be most effective.

Use a systemic herbicide, such as glyphosate, in order to destroy the root system.

Brush applications on recently cut stumps, in addition to the basal bark method, often achieve good results.

Native Alternatives

Many low-growing native trees and shrubs are available:



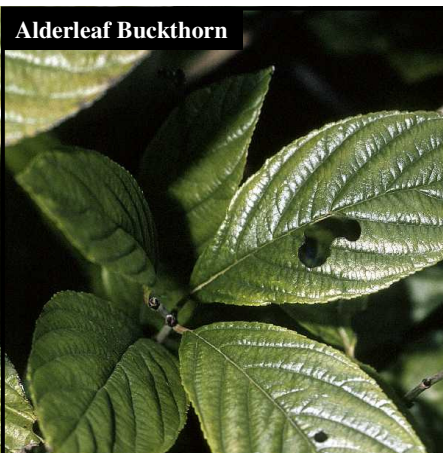
Steven Katovich, USDA Forest Service
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Vern Wilkins
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Look-A-Likes:

Glossy buckthorn may be confused with native buckthorns (*Rhamnus* spp.) and cherries (*Prunus* spp.).



Robert H. Mohlenbrock, USDA NRCS
www.plants.usda.gov

References:

Global Invasive Species Database: <http://www.issg.org/database/species/ecology.asp?fr=1&si=810&sts=>

Harvard University: <http://harvardforest2.fas.harvard.edu/asp/hf/symposium/showsymposium.html?id=748&year=2009>

USDA Forest Service: http://www.na.fs.fed.us/fhp/invasive_plants/weeds/glossy-buckthorn.pdf

For More Information:

DCNR Invasive Species Site: <http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>

DCNR Invasive Exotic Plant Tutorial for Natural Lands Managers: http://www.dcnr.state.pa.us/forestry/invasivetutorial/common_glossy_buckthorn.htm