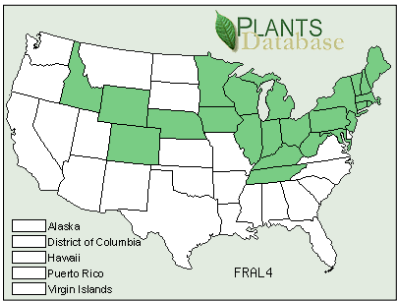
Glossy Buckthorn *Rhamnus frangula*,

syn. *Fragua alnus*

Common Names: glossy buckthorn, alder, tallhedge, columnar, fernleaf, fen buckthorn, European alder

Native Origin: Eurasia; introduced as ornamentals around 1849 to the Midwestern states

Description: A shrubby or small tree in the buckthorn family, (*Rhamnaceae*) growing to a height of 10-25 feet. Trunks grow up to 10 inches in diameter, and the bark is gray or brown with prominent, closely spaced lenticels. Simple, alternate leaves are ovate to elliptic with toothless margins. The papery, dark green leaves have a shiny upper surface and a dull, hairy or smooth lower surface. Pale yellow flowers have 5 petals, grow solitarily or in clusters of two to eight in the leaf axis, and bloom from May to first frost. Red to dark purple pea-size fruit ripen from July to September. Seeds remain viable in the soil for 2 to 3 years.



Habitat: It is located in a wide variety of habitats including nutrient-poor soils, full sun, and dense shade. It is found along forest edges, riverbanks, lakesides, marshy land, and wet soil but also drier areas.

Distribution: This species is reported from states shaded on Plants Database map. It is reported invasive in CT, IL, IN, MA, MD, ME, MI, MN, MS, NH, NJ, NY, OH, PA, RI, VA, VT, and WI.

Ecological Impacts: Glossy buckthorn grows at a rapid rate and is particularly aggressive plant in wet areas. It produces dense shade that eliminates native tree seedlings, saplings, and ground layer species. The ability of forest to regenerate and remain healthy can be severely limited as buckthorns multiply. Glossy buckthorn is a prolific producer of berries that attract birds that spread the seeds.

Control and Management:

- **Manual**- Pull plants before they begin to produce fruit and when soil is damp; use leveraging tool for large plants; girdling is successful if herbicides are applied to the girdled surface; controlled burning is effective when a large number of buckthorn seedlings are present; repeat burning maybe necessary to deplete seed bank; caution should be taken so the native plant community is not adversely affected
- **Chemical**- It can be effectively controlled using any of several readily available general use herbicides such as glyphosate or triclopyr. In areas of standing water, use herbicides approved for aquatic habitats. Apply herbicides in fall when plants are going dormant and chemicals are drawn down into the roots with natural sap flow. Follow label and state requirements.
- **Biocontrol and Natural Enemies**- Fifteen species of fungi and 20 arthropods have been recorded on the genus *Rhamnus*, but none attack glossy buckthorn. In Europe, researchers are conducting tests for the potential use of insects for biocontrol. Early release of insects in North America is targeted for 2007 and 2010.

References: www.forestimages.org, http://plants.usda.gov, www.nps.gov/plants/alien, www.fs.fed.us, Elizabeth J. Invasive Plants of the Upper Midwest, An Illustrated Guide to their Identification and Control, 2005 p. 35-41, Invasive Plants Established in the United States that are Found in Asia and their Associated Natural Enemies, USDA, FHTET 2005-15 Vol. 2, p. 92