INVASIVE PLANTS OF OHIO

Fact Sheet 2 — Common & Glossy Buckthorns

Rhamnus cathartica, Frangula alnus

GLOSSY BUCKTHORN

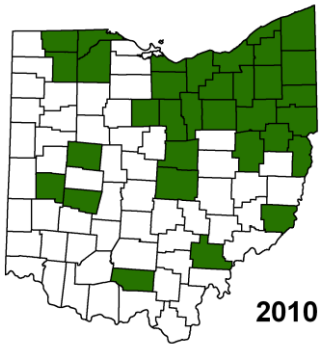
DESCRIPTION:

Glossy and common buckthorns are woody shrubs or small trees that can attain a height of 20 feet. The cut stems reveal a distinctive yellow sapwood and pink to orange heartwood.

Glossy buckthorn has gray-brown bark and lightly-colored lenticels giving the bark a speckled appearance. Leaves are 1-3 inches long, shiny dark green above, oval-shaped and slightly wavy. The creamy-green flowers are 5-petaled. Plants flower from May to June. The purple-black fruits ripen from July to September. The fernleaf buckthorn variety 'Asplenifolia' has been discovered in bogs and other peatlands in northeastern Ohio. Another form, tallhedge buckthorn 'Columnarus,' is a rare, local escape.

Common buckthorn has slender, glabrous stems often tipped with a spine. Leaves are 1 to 2½ inches long, oval, rounded or pointed at the tip and have jagged, toothed margins. The upper and lower leaf surfaces are without hairs. Leaves appear dark, glossy green on the upper surface and stay green late into fall. This dioecious shrub has small, 4-petaled yellowish-green flowers. Its dark purple-black fruits ripen July to September.

GLOSSY BUCKTHORN

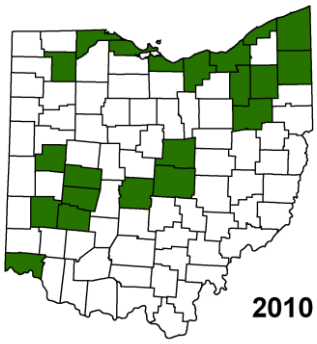


These buckthorns were introduced to North America from Eurasia as ornamental shrubs for fence rows and wildlife habitat. Introduction of buckthorn was based on its hardiness and ability to thrive in a variety of soil and light conditions. Both species are well-established in central and northern Ohio. These species may be confused with Ohio's native buckthorns, alder-leaved (*Rhamnus alnifolia*), lance-leaved (*R. lanceolata*), and Carolina buckthorns (*R.caroliniana*), which are uncommon or rare in the state.

HABITAT:

Glossy buckthorn invades wetlands, which includes swamps, bogs, fens and wet meadows. It also occurs in upland habitats such as open woods, woodland edges, old fields and roadsides. Common buckthorn is primarily an invader of uplands, such as open woods, woodland edges, prairies, and open fields. It also invades flat woods, fens, and other moist to wet habitats, but less frequently than glossy buckthorn.

COMMON BUCKTHORN



INVASIVE CHARACTERISTICS:

Glossy and common buckthorns tend to form dense, even-aged thickets (of seedlings, saplings, or sprouts), crowding and shading out native shrubs and herbs, often completely displacing them.

CONTROL:

Mechanical: Hand-pulling can be effective for small populations. The entire plant, including the roots, should be removed or re-sprouting may occur. For thickets of seedlings or small saplings, repeated mowing or bush-hogging may be effective, but vigorous re-sprouting will occur. Cutting or mowing invigorates both buckthorn species to resprout, often creating a larger problem, particularly in wetlands, so mechanical methods are generally ineffective. Prescribed burning may be used, but fire only top-kills the stems and must be repeated on a 3-5 year frequency to reduce sprouting. Most glossy buckthorn sites are often too wet to accomplish effective burning.

Chemical: Selective herbicide application is the most effective control method for woody, invasive plants. Herbicide can be applied to foliage during the growing season, cut stems (at the time of cutting), or the bark of the lower portions of the stems/trunks. Cut stem and basal bark application can be done in the dormant season, but is most effective when temperatures are above freezing. Herbicides for foliar application include Roundup, AquaNeat, Garlon 3A with Escort, Krenite with Escort, Razor, Accord, and Arsenal. Herbicides for cut stem or basal bark include Garlon 4, Stalker, Pathfinder II, and Pathway (RTU). Residual herbicides such as Escort may be necessary to control re-sprouting, but care should be taken if non-target plants are in the vicinity. Only some of these herbicides are approved for wetland habitats. Many herbicides require a penetrating or sticking agent such as Penevator Basal Oil or Nu-Film-P.

COMMON BUCKTHORN

Biological: Biological controls are not available for either buckthorn species at this time.

Credits and additional information:

Plant Conservation Alliance-Alien Plant Working Group
Ohio Department of Natural Resources, www.ohiodnr.gov
The Nature Conservancy, Ohio Chapter
OIPC website, www.oipc.info

Note: Maps of species' ranges are based on records as of 2010.