

Common Buckthorn

Rhamnus cathartica

Ecological Impact

- Casts dense shade which reduces the growth and survival of native shrubs and trees;
- Leafing out so early that even spring ephemerals are impacted;
- Changes soil characteristics making soil inhospitable to other plant life;
- Works like a laxative on birds which spread the seeds and stain outdoor furnishings.



Buckthorn berries.



Buckthorn leaves.

Characteristics

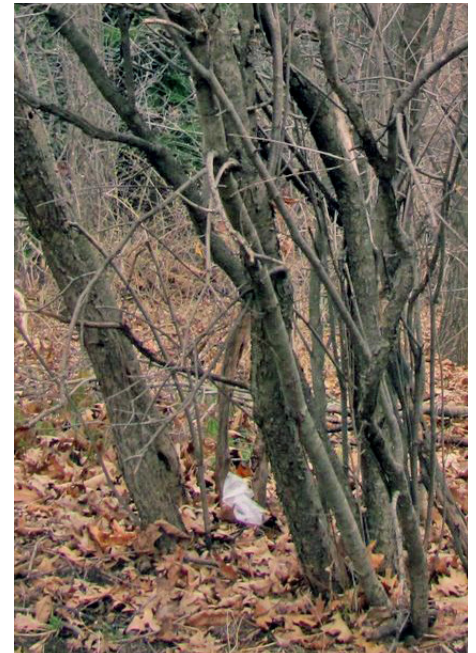
Common buckthorn is a deciduous shrub or small tree that can reach 22 feet in height with a trunk up to 10 inches wide. Its bark is gray to brown and looks like that of plum or wild cherry. A spine often tips the twig of common buckthorn. Buckthorn's inner bark is yellow, and the heartwood is pink to orange. Leaves are dark green, broadly oval, and may have pointed or rounded tips with toothed edges. A reliable indicator for identification is its green foliage late in autumn after native shrubs have lost their leaves.

Buckthorn has a long growing season, leafing out before native plants have broken dormancy and retaining its leaves until late fall. Its foliage creates dense shade in which wildflowers, grasses, and shrubs are unable to thrive. Buckthorn's shade also prevents growth of young oaks and hickories.

Prolific seed production allows buckthorn to flourish. Female specimens produce numerous small, black, berry-like fruits most of which fall directly under the shrubs creating an impenetrable mass of seedlings; birds eat other fruits and carry them far beyond the mother shrub. Because birds have difficulty digesting the fruits, they rapidly expel the seeds (note the species epithet, *cathartica*). Thus, the shrubs reproduce and spread rapidly.



Buckthorn choking trees along roadside.



Mature and young buckthorn bark.



Buckthorn heartwood.

Habitat

Common buckthorn prefers lightly shaded conditions. It invades open oak woods, deadfall openings in woodlands, and woodland edges. It is also found in prairies and open fields. It tolerates many soil types. Buckthorn respects no boundaries. It is probably in your yard if you have some bushes and a little shade.

Similar Species

Invasive

- Glossy buckthorn (*Rhamnus frangula*) does not have a spine at twig tips; the leaf edges are not toothed; and the undersides of the leaves are hairy. Glossy buckthorn typically invades wetlands but also occurs in upland habitats. Both common and glossy buckthorn are capable of growing in full sun as well as heavily shaded areas.

Native

- Native plums and cherries have similar bark.
- Black chokeberry, gray dogwood and many species of viburnum have a somewhat similar appearance.

Control Methods for Common Buckthorn

Before you kill buckthorn, be certain that you have identified it correctly. The native species that are routinely mistaken for buckthorn are: American plum, black chokeberry, black cherry, hawthorn, nannyberry and gray dogwood.

Hand Pulling

Hand pull small plants and use a weed wrench to pull plants up to 1½ inches in diameter. Hand pulling removes the roots, preventing resprouting. Remove plants gently to prevent uncovering buckthorn seeds stored in the soil.

Cutting

If buckthorn is larger than 1½ inches, saw or clip the stems near the ground. Unfortunately, buckthorn will resprout. You can repeatedly clip the new sprouts which will weaken the plant, but that is a long process. To prevent resprouting, paint cut stumps with glyphosate (Roundup®) immediately after cutting, being careful to avoid other plants since glyphosate kills all growing vegetation. The best time to use herbicide is in the fall when buckthorn is one of the few actively growing shrubs.

Herbicides

Herbicide container treatments are least effective in the spring. Glyphosate and triclopyr are both effective against buckthorn.

Immediately after cutting, apply herbicide to the stumps with a bristle paint brush or single-use foam brush.

1. Glyphosate is the active ingredient in Roundup®, Rodeo® and others. 10 to 25% active ingredient is needed for stump applications.

2. Triclopyr is the active ingredient in Garlon® 3A, Garlon® 4, ORTHO® MAX™ Poison Ivy & Tough Brush Killer, Crossbow®, Pathfinder® II and others.

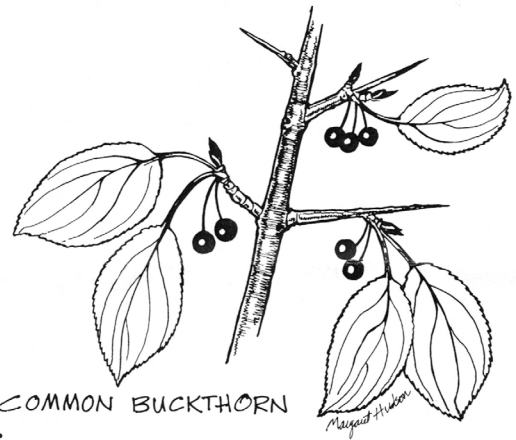
Follow all the usage directions and safety precautions on your herbicide's container.

Burning

First check to see if burning is allowed in your community. Burning buckthorn is usually not an option for homeowners.

Conduct burns as soon as leaf litter is dry. Buckthorn seedlings are vulnerable to fire due to their immature root structure. Fire will top kill a mature plant, but resprouting will occur.

It is difficult to burn a dense buckthorn stand because buckthorn shades out understory plants allowing minimal fuel build-up. Buckthorn leaves rarely provide fuel since they disintegrate too rapidly. In dense stands, buckthorn trees and saplings can be cut and dropped on site, creating fuel for future fires.



Education

Inform your family, friends and neighbors about buckthorn. Remember, birds feeding on your neighbors' buckthorn berries will drop seed in your yard too. Encourage neighbors to remove their buckthorn.

Suggested Replacements

Immediately upon removing buckthorn, be ready with replacement plants, or cover the bare soil with several sheets of newspaper and wood chips. Leaving bare soil encourages garlic mustard and other weeds to invade.

Many native trees and shrubs serve as great replacements for buckthorn, providing the same level of privacy along with other benefits. The plants listed below provide excellent nesting sites and cover for birds and small mammals and shade for us. Their flowers provide nectar for butterflies and other pollinators while birds eat their fruit.

Elderberry (*Sambucus canadensis*)
Black chokeberry (*Aronia melanocarpa*)
Blackhaw viburnum, (*Viburnum prunifolium*)
Serviceberry (*Amelanchier arborea*)

Sources

Fact Sheet: Common Buckthorn from Plant Conservation Alliance's Alien Plant Working Group at <http://www.nps.gov/plants/alien/fact/rhca1.htm>;

Chemical Control of Buckthorn by Janet Van Sloun Larson, Natural Resource Specialist, City of Minnetonka, MN; http://dnr.wi.gov/invasives/fact/buckthorn_com.htm.

Illustration by Margaret Hudson.

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CITIZENS FOR CONSERVATION
459 West Highway 22
Barrington IL 60010

847-382-SAVE (7383)

www.citizensforconservation.org

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