

## Common buckthorn (*Rhamnus catharticus*)

**History:** Common buckthorn was introduced to North America in the 1800s as an ornamental and for use in hedgerows and shelter belts. It is native to Europe and northwestern Asia. The scientific name is derived from the Greek *rhamnos*, meaning a branch, and *carthartica*, meaning cathartic or purgative. The berry-like fruits of common buckthorn act as a laxative. Birds commonly eat the fruits and serve as effective dispersers given the fruits' laxative qualities. The fruit would have the same impact on people, accompanied by nausea, vomiting, and colic. Glossy buckthorn (*R. frangula*) is also invasive and shares a similar history with common buckthorn; this post will focus on common buckthorn because it has been reported in Montana over the years while glossy buckthorn has not.

**Identification:** Common buckthorn is large shrub to small tree that grows 10-25' tall (Fig. 1). The bark is brown or gray; inner bark is a distinctive orange to yellow color (you can expose inner bark by scraping stems and twigs with a knife, key, or even fingernail). Often the tips of twigs have short, sharp, spike-like thorns (Fig. 2). Common buckthorn leaves are glossy, dark green and mostly opposite. They have 3-6 pairs of veins curving toward the tip from the mid-vein; leaf margins are finely toothed (Fig. 3). Leaves stay green late into fall, beyond the growing season of most native woody plants. Male and female flowers occur on separate plants (dioecious). Non-showy flowers form in clusters and are yellowish-green with four petals (Fig. 4). Berry-like fruits turn from green to black in fall (Fig 5).

**Impacts:** Common buckthorn forms dense stands in the understory of deciduous forests. Dense stands form an impenetrable understory layer which can shade out other woody and herbaceous plants and reduce wildlife habitat.

**Habitat:** Common buckthorn mostly occurs in the understory of deciduous forests, both in upland and riparian areas. It is often found in disturbed areas such as thickets, hedgerows, pastures, abandoned fields, and roadsides. Common buckthorn is problematic mostly in the northeastern and northcentral regions of the U.S.

**Spread:** The primary means of spread is by birds that eat the fruits and excrete the seeds, often long distances from the mother plant. Fruits cause a severe laxative effect in animals, thereby allowing for distribution of seeds in their excrement.

**Management:** In Montana common buckthorn is not a noxious weed, and the invasive potential of this plant is unknown. Since 1921 it has been reported in 27 Montana counties. In states where common buckthorn is noxious, management is typically achieved using a combination of mechanical and chemical control. Seedlings (stems 0.5 to 1.5" diameter) can be removed by hand-pulling or digging, or a foliar herbicide application (glyphosate, triclopyr, triclopyr + 2,4-D) can be used for dense patches. Bigger plants (up to 6" diameter stems) can be treated using a basal bark herbicide application in the fall. Large plants (>6" diameter stems) should be treated using a cut-stump + herbicide treatment in fall or winter (common buckthorn is a re-sprouter).



Figure 1. Common buckthorn plant.



Figure 2. Thorn-tipped twig.



Figure 3. Leaves.

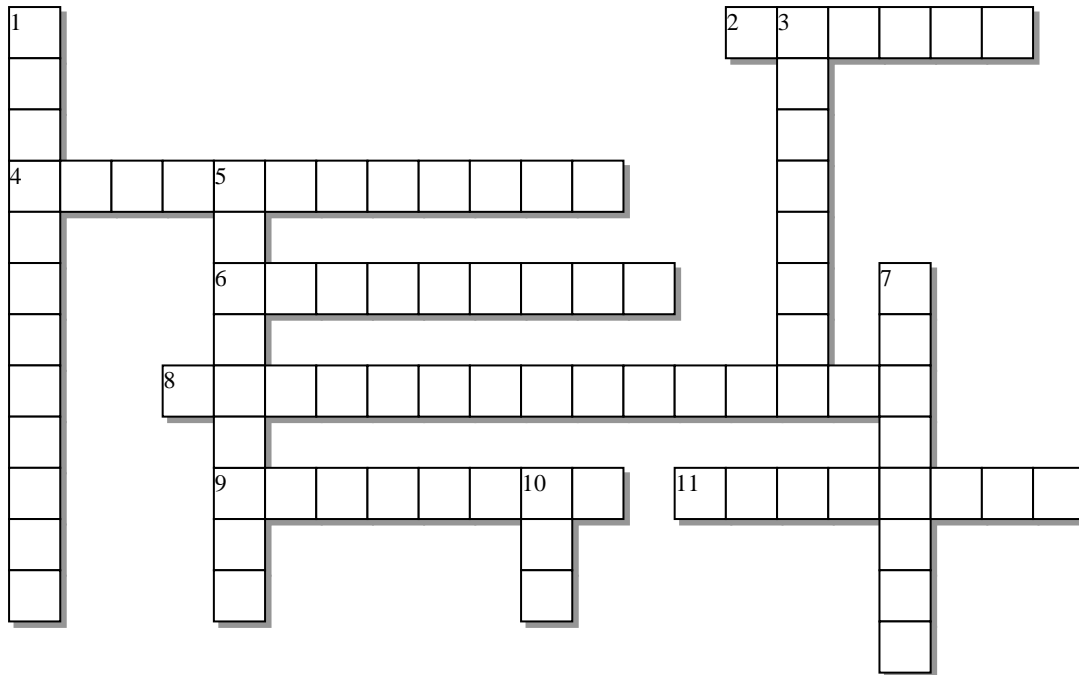


Figure 4. Non-showy, yellow-green flowers.



Figure 5. Black, berry-like fruits.

Test your knowledge of Common buckthorn



**Across:**

- 2 - Similar to common buckthorn, this sleek and shiny species of buckthorn is invasive in North America
- 4 - This is one of two regions of the U.S. where common buckthorn is very problematic
- 6 - A term used to describe a species whose male and female flowers occur on different plants
- 8 - Be on the lookout for common buckthorn in this habitat
- 9 - Leaf arrangement of common buckthorn
- 11 - Look for sharp, spine-like thorns here

**Down:**

- 1 - Look for this color on the inner bark to be sure you have common buckthorn and not a look-a-like
- 3 - Berry-like fruits have this quality, enabling them to be well (and quickly) dispersed by birds and other animals-Don't look up!
- 5 - Common buckthorn was introduced as an ornamental and for planting these
- 7 - This management technique is very effective for large common buckthorn plants
- 10 - The leaf veins curve towards the \_\_\_\_ (like red twig dogwood leaves) rather than extending straight out to the margins

Solutions are posted to the MSU Extension Invasive Rangeland Weed website:  
<http://www.msueextension.org/invasiveplantsMangold/extensionsub.html>

