

Rhamnus cathartica

Common buckthorn

Why Observe?

Common buckthorn is recognized as an invasive species in many states. As a non-native understory shrub species, *Rhamnus cathartica* individuals leaf out very early and retain their leaves late in the growing season, causing the shading out of native wildflowers and herbaceous species. In addition, buckthorn are allelopathic, or toxic to other plants.¹

Birds and mice eat the fruits of *Rhamnus cathartica*, which facilitates the long-distance dispersal of the seeds. When consumed, the berries can produce laxative effects (ergo, the Latin name *cathartica*). Seeds can be viable in soil for 2-3 years.

¹Warren, RJ, et al "Allelopathic invasive tree (*Rhamnus cathartica*) alters native plant communities" *Plant Ecology* 218(1) Oct 2017 DOI:10.1007/s11258-017-0766-2



Common Buckthorn Paula D. M. Chantigian 2022 June 5 Byron MN USA f1.6

Tips for Identification

Common buckthorn is a deciduous, large shrub to small tree growing 3 to 25 feet tall. Male and female flowers generally occur separately on different plants, although the plants occasionally have flowers with both male and female parts. The small, rather inconspicuous, light yellowish-green to yellowish-brown flowers are grouped into clusters along the branches. Depending on the sunlight received at a site, flowering begins when plants mature from a few years to 20 years of age. They are insect-pollinated.

Multiple stems found at base with spreading crown. Bark is shiny gray in younger plant to dark brown in older plant. Sapwood is orange. When cut, distinctive unpleasant odor emanates. Twigs end in thorn with terminal buds and thorn looking like a buck's hoof. Leaves are opposite to sub-opposite, elliptical with pointed tip, small toothed and glossy green. Foliage appears earlier in spring and stays later in fall than most other plants. Bloom May to June. Clusters of black ¼ inch ripe fruits with 3-4 seeds appear in late summer.²

²Selections from UMEExtension Authors Angela Gupta, Amy Rager and Megan M. Weber

Be aware there is variation from individual to individual within a species, so your plant may not look exactly like the one pictured. If you are uncertain whether or not a phenophase is occurring, report a "?" for its status until it becomes clear what you are observing after subsequent visits.



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org CC BY-3.0 Resized, cropped
https://commons.wikimedia.org/wiki/File:Rhamnus_cathartica_5456160.jpg



Chris Evans, University of Illinois, Bugwood.org CC BY-NC 3.0 Resized, cropped <https://www.invasive.org/browse/detail.cfm?imgnum=1334009>

Rhamnus cathartica
Common buckthorn



Breaking leaf buds

One or more breaking leaf buds are visible on the plant. A leaf bud is considered "breaking" once a green leaf tip is visible at the end of the bud, but before the first leaf from the bud has unfolded to expose the leaf base at its point of attachment to the leaf stalk (petiole) or stem.

Ryan Hodnett 4-26-17 Guelph Ontario Canada CC BY-SA Resized, cropped
https://upload.wikimedia.org/wikipedia/commons/7/79/Common_Buckthorn_%28Rhamnus_cathartica%29_-_Guelph%2C_Ontario_2017-04-26.jpg



Increasing leaf size

A majority of leaves on the plant have not yet reached their full size and are still growing larger. Do not include new leaves that continue to emerge at the ends of elongating stems throughout the growing season.

Leafing Out John M. Randall, The Nature Conservancy, Bugwood.org
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<https://www.invasive.org/browse/detail.cfm?imgnum=5392500>



Flowers or flower buds

One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds or inflorescences that are swelling or expanding, but do not include those that are tightly closed and not actively growing (dormant). Also do not include wilted or dried flowers.

@snowlily Watertown, NY 2022May21
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<https://www.inaturalist.org/observations/118098799>



Fruits

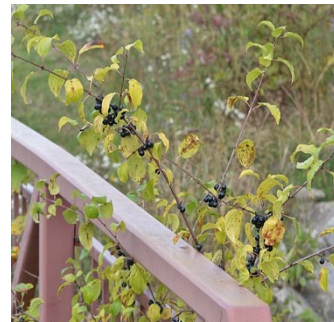
One or more fruits are visible on the plant. For *Rhamnus cathartica*, the fruit is berry-like and changes from green to black.

Jo Zimny Photos "Common Buckthorn" CC BY-NC-ND 2.0 Resized, cropped

<https://www.flickr.com/photos/joy251/35613320784>



Common Buckthorn Leaves and bark on older tree
Paula D. M. Chantigian Byron, MN 2022June11, resized, cropped



Ryan Hodnett CC BY-SA resized, cropped
[https://commons.wikimedia.org/wiki/File:Common_Buckthorn_\(Rhamnus_cathartica\)_-_Waterloo,_Ontario_2019-10-11.jpg](https://commons.wikimedia.org/wiki/File:Common_Buckthorn_(Rhamnus_cathartica)_-_Waterloo,_Ontario_2019-10-11.jpg)



Erin O'Connell,
Resized <https://extension.umn.edu/sites/extension.umn.edu/files/commonbuckthorn-25.jpg>



<https://www.mda.state.mn.us/plants/pestmanagement/weedcontrol/noxiouslist/commonbuckthorn>

Leaves

One or more live, unfolded leaves are visible on the plant. A leaf is considered "unfolded" once its entire length has emerged from a breaking bud, stem node or growing stem tip, so that the leaf base is visible at its point of attachment to the leaf stalk (petiole) or stem. Do not include fully dried or dead leaves.

Colored leaves

One or more leaves show some of their typical late-season color, or yellow or brown due to drought or other stresses. Do not include small spots of color due to minor leaf damage, or dieback on branches that have broken. Do not include fully dried or dead leaves that remain on the plant.

Open flowers

One or more open, fresh flowers are visible on the plant. Flowers are considered "open" when the reproductive parts (male stamens or female pistils) are visible between or within unfolded or open flower parts (petals, floral tubes or sepals). Do not include wilted or dried flowers.

Ripe fruits

One or more ripe fruits are visible on the plant. For *Rhamnus cathartica*, a fruit is considered ripe when it has turned black.

Phenophases not pictured: Falling leaves, Recent fruit or seed drop