



# Invasive Plant Alert<sup>1</sup>

## Chinese Buckthorn

*Rhamnus utilis* Decne.

Chinese Buckthorn can form dense colonies that can reduce the survival and growth of native seedling species.

### Where to Look

Chinese Buckthorn has been found below 3300m in forests, thickets, mountains, hills, grassy slopes, roadsides, and old fields.

This species is native to China and was initially introduced to North America as an ornamental. It is a serious invader in parts of Illinois, Iowa, Michigan, and Ohio. In our area it has been seen in the Baltimore-Washington Parkway along Beaver Dam Rd.



Figure 1 *Rhamnus utilis*, flowering.  
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### Identifying the Plant

Chinese Buckthorn is a shrub or small tree that can grow from 3-8m tall. Branches are opposite with young branches that are whitish to grayish and either covered with down or losing the downy covering. Young branches also terminate in a bud or spine. Old branches are brown or purple-red and smooth. Leaves are simple, opposite or bundled together on

short shoots; the underside of the leaf blade is yellow-green while the upper side is dark green and shiny. Leaves generally have 5-8 pairs of veins.

Flowers are arranged in clusters along the stem and are either greenish-white or yellowish. They bloom May-July. Fruit is set from May-August and is fleshy and black at maturity with 2-4 seeds.



Figure 2 *Rhamnus utilis*, leaves.  
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### How to get rid of it?

*R. utilis* sets lots of seed, and the seeds are widely dispersed by birds. This, coupled with the plant's ability to easily re-sprout after being cut, makes control difficult and requires repeated treatments, no matter the control method used.

Prescribed burning can be used to kill seeds and seedlings, and top-kill mature plants in fire-adapted communities. The best time for prescribed burning is in

the spring shortly after early leaf-out but while carbohydrate resources are low. Late season or one-time only burning treatments will likely result in increased buckthorn cover.

Hand pulling and weed wrenching can remove seedlings and mature plants up to 7 cm across. Removing roots will cause soil disturbance which may facilitate colonization by other weedy invaders. Cutting the plant and leaving the stump in the ground will result in vigorous re-sprouts.

To be most effective, mechanical control should be used in conjunction with chemical control. Glyphosate can be used to inhibit re-sprouting. For greatest success, glyphosate must be applied immediately after cutting, and is best applied in the fall. In addition to cut-surface treatments, stem injections of glyphosate can be used. Follow-up treatments will likely be needed to improve chances of eradication.

### Resources

Vegetation Management Guideline. Vol. 1, No. 5 (Rev). (2007). <http://dnr.state.il.us/inpc/pdf/VMG%20Buckthorns%20revised%202007.pdf>

Flora of China. 12: 139-162. (2007). <http://flora.huh.harvard.edu/china/pdf/PDF12/Rhamnus.pdf>

<sup>1</sup> This species has been identified as a potential or emerging threat to natural areas in the mid-Atlantic region