

## Common & Glossy Buckthorn

*Rhamnus cathartica* & *Frangula alnus*



### What are invasive species?

Invasive species are species that are introduced to an area outside of their native range. They can be introduced intentionally or unintentionally.

### Why are invasive species a problem?

Once they establish, invasive plants can reproduce quickly because they have no natural predators or pathogens to keep them in check, and they often become the dominant species in an ecosystem. This can have devastating effects on the environment. Invasive species can displace native plants by monopolizing space, light, water and other resources needed for growth. They can completely alter native plant communities and drastically lower biodiversity. Invasive species can also adversely affect the economy and human health, and interfere with recreational activities.

### CONCERN

The buckthorns are fast-growing and densely-leaved, so are able to monopolize light and out-compete native species. Both species are highly adaptable and able to grow in a wide variety of habitats, including open areas with full sun or shady, forested areas. Seed production is prolific and seedlings germinate early in spring, before most other understory plants. The leaves on larger buckthorn shrubs also emerge early in the spring, blocking sunlight from reaching lower-growing species, such as native wildflowers. Buckthorn berries contain a natural laxative, so seeds are quickly spread by birds who eat the berries. The berries stay on the shrubs over winter, increasing the chance that foraging birds will eat them. Buckthorns also release chemicals from their roots, preventing other plants from growing nearby, thus reducing



Mature (blue-black) and immature. (red) glossy buckthorn berries

### CONTROL METHODS

Before you decide which control method you are going to use, consider the size of the infestation you are dealing with, your available resources and the amount of effort you are willing to expend. Often, multiple control methods are used simultaneously. Surveying and management for glossy buckthorn is best done in the spring, as this plant produces leaves very early. This way, you will avoid trampling native species that might be present in the area. You will have plenty of time in early summer for your management before glossy buckthorn goes to seed. The most important aspect of glossy buckthorn management is that the berries are prevented from establishing. Berries are glossy buckthorn's main method of spread. Cutting and burning tend to lead to vigorous resprouting so are not recommended control measures. While these treatments temporarily prevent seed production, they do not kill the buckthorn plants and removal sites must be closely monitored for regrowth and control treatments repeated. Removal sites must be closely monitored for regrowth, and regularly repeated control efforts will likely be required to effectively control an infestation.



Glossy buckthorn seedlings.

### PULLING OR DIGGING

Physical removal of buckthorn infestations is the most effective method of manual control available. Plants less than 1 inch in diameter and about a metre in height can be pulled by hand or with the help of tools. The Extractigator® is a tool designed specifically for this purpose. This is a lever system designed to uproot tough shrubs and bushes. Spades and shovels can be used to cut a circle 1-2ft out from the shrub's trunk. Another person rocks the shrub back and forth to show what remains necessary to cut. Using an axe can help to chop through the roots making it easier to remove large shrubs.



"Girdled" glossy buckthorn.

## PULLING OR DIGGING, CONT.

Regeneration is unlikely if a portion of the root system is removed. Tap disturbed soils back into place and plant suitable native species to discourage the further establishment of invaders. The right species to plant will vary site to site. Reach out for advice on selecting a replacement to plant. Native alder and willow grow similarly. Pulling buckthorn plants early in the season is ideal, as it helps to reduce competition for the light and nutrients needed by other plants. If the plant has

berries, it is important to remove the branches and bag them before pulling the stem out. You do not want to shake the berries off the branch during management, as this will make the seed bank longer-lasting. Laying out a ground sheet below your work area can help catch any berries that detach. Pulling buckthorn infestations is labour intensive, so this method may not be possible for large infestations.

## GIRDLING

Girdling involves removing a two-inch-wide ring of bark from near the base of a tree. Remove the outer bark and the green cambium layer, but avoid cutting into the hard core of the trunk. If the xylem layer in the core is disturbed the shrub will respond by resprouting. If the cut is not deep enough the tree will heal.

This is why it is key to cut to the appropriate depth. This technique allows the roots to nourish the crown but prevents the crown from sending nourishment back to the roots, leading to eventual root death. Trees that have been girdled should continue to be monitored and new sprouts that develop below the girdled site should be removed. Girdling buckthorn infestations is labour-intensive, so this method may not be feasible for large infestations. Girdling should be reserved for large individuals that cannot be pulled or along waterways where it is the only species along the bank.

## DISPOSAL

Place invasive plants in a clear plastic bag and secure. Write plant name (or "invasive plant") on the bag. Place in waste cart (you can also have up to 2 excess bags beside your cart) OR bring them to any Waste Watch Drop-Off Center and pay applicable waste disposal fee. Businesses and residents disposing of loads greater than what would fit in a half-ton truck require a permit from the Department of Environment Energy, and Climate Action [Special Waste Disposal Permit | Government of Prince Edward Island](#). After receiving the permit, businesses and residents will be directed to an appropriate final disposal facility. Please note that only loads for which permits have been issued will be accepted at these facilities. Please check the IWMC sorting guide [www.iwmc.pe.ca/sort](http://www.iwmc.pe.ca/sort) (type Invasive Species in the search window) to ensure these instructions are up to date.

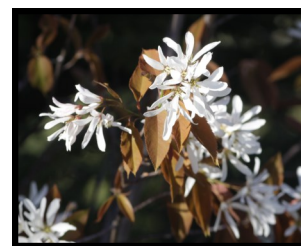
## GARDEN ALTERNATIVES



**Witch Hazel**  
*Hamamelis virginiana*



**Beaked Hazelnut**  
*Corylus cornuta*



**Serviceberry**  
*Amelanchier spp.*

Photos provided by: Beth Hoar, Green Thumb Photography; Mike Ogden

## How can you help?

Here are a few things you can do to help stop the introduction and spread of alien invasive species:

- Learn more about invasive species in PEI, including how to identify species of concern
- Choose native species whenever possible
- Carefully inspect and clean clothing, gear, animals, and vehicles before visiting a new natural area
- Never dump garden or pond waste in a natural area
- Report your IS sightings to the PEIISC.

## How to report:

Record any invasive species sightings at:

<https://www.eddmaps.org/report/>

OR

<https://www.inaturalist.org/>

OR contact

[peiinvasives@gmail.com](mailto:peiinvasives@gmail.com)

