

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

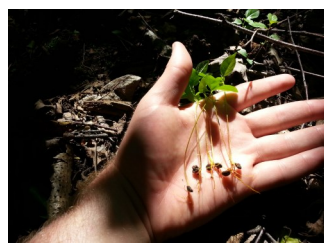
The buckthorns are fast-growing and densely-leaved, so are able to monopolize light and out-compete native species. Both species are highly adaptable and able to grow in a wide variety of habitats, including open areas with full sun or shady, forested areas. Seed production is prolific and seedlings 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 competition for light and nutrients.



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. Cutting and burning tend to lead to vigorous re-sprouting 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.



Glossy Buckthorn seedlings that have been hand-pulled

PULLING or DIGGING

Physical removal of buckthorn infestations is labour intensive so may not be possible for large infestations. Small plants (< 1 inch diameter) can be removed by pulling. Medium to large sized plants can be removed with shovels or commercial weed pullers. Using an axe to chop through the roots facilitates easier removal of large shrubs. Regeneration is unlikely if a portion of the root system is removed. Tap disturbed soils back into place or plant native species to discourage further establishment of invaders. Pulling buckthorn plants early in the season is ideal, as it helps to reduce competition for the light and nutrients needed by other plants.



"Girdled" Glossy Buckthorn

GIRDLING

"Girdling" is the removal of bark from the base of a tree. By removing a two-inch wide ring of bark from near the base of a tree, you effectively block the transport of nutrients from the roots to the leaves, leaving the tree to die. The girdle must be an adequate depth to remove the tree's vascular tissue, or the tactic will fail. Trees that have been girdled should continue to be monitored and new sprouts that develop below the girdle site should be removed.

CHEMICAL CONTROL

Chemicals may be used to control buckthorn species, although it is not recommended by the PEI Invasive Species Council. Surrounding vegetation may be damaged by the herbicides and their use is prohibited near wetland environments in PEI.

DISPOSAL

All plant material that is removed should be transported to a waste management facility for incineration. Care should be taken to prevent the spread of buckthorn so removal before berry production occurs is ideal and reduces the chance of accidentally spreading buckthorn during transport. Once berry production has begun, plants should be bagged or transported in a sealed container. Repeated monitoring of habitat where buckthorn was removed is essential to identify and remove new sprouts and shoots.

GARDEN ALTERNATIVES

There are many native plant alternatives available. Please refer to the Invasive Alien Species of PEI: Common Buckthorn fact sheet for more information on garden alternatives.



Witch Hazel
(*Hamamelis virginiana*)



Beaked Hazelnut
(*Corylus cornuta*)



Serviceberry
(*Amelanchier spp.*)

PREVENTION

The most effective and cost efficient way to avoid infestations of invasive species is to learn about potential invaders and be on the look out for them before they get a chance to establish. To learn more about how you can get involved in preventing invasives in PEI, contact the PEI Invasive Species Spotter's Network at: peiinvasives@gmail.com.

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



Your Conservation Dollars at Work

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
- When disposing of invasive species, they should be placed in a clear or dark plastic bag and taken to Island Waste Management for incineration
- Report a sighting

How to report:

If you think you have seen this invasive species on PEI, please report your sighting to the PEI Invasive Species Council at:

www.peiinvasives.com

or email

peiinvasives@gmail.com