



INVASIVE ALIEN SPECIES OF PEI:

Common Buckthorn *Rhamnus cathartica*



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.

HISTORY

Common buckthorn originally came from Europe. It was introduced to North America in the 1800s as an ornamental garden shrub. It has since spread throughout Eastern and Central North America. There are extensive populations of common buckthorn in Western PEI and some isolated patches in the Central region.

IDENTIFICATION

Positively identifying common buckthorn can be difficult because it's relative, glossy buckthorn, is widespread and looks very similar. Glossy buckthorn is also invasive. Both trees grow to be around 20ft at maturity. However, there are a few features that can be used to differentiate between the two:

- Common buckthorn has slightly-toothed leaf edges. Glossy buckthorn's leaves have smooth edges
- Common buckthorn has a spike at the end of branches. The spike is absent in glossy buckthorn
- Green-yellow flowers grow in close bundles and bloom mid-spring through to early summer



- Flowers form green berries which ripen to black in late summer
- Berries remain all winter
- Common buckthorn does not spread as quickly as glossy buckthorn. Glossy buckthorn is more likely to take over the understory with a shrub-like growth habit, while common buckthorn is most often found as a large shrub

CONCERN

Common buckthorn outcompetes many native species. It is fast-growing and densely-leaved, so it is able to monopolize light. Common buckthorn also produces emodin. Emodin is a compound found in common buckthorn leaf litter. It is thought to assist in suppressing seedlings of other plant species. In addition, common buckthorn berries contain a natural laxative, so seeds are quickly spread by birds who eat the berries.



HABITAT

Common buckthorn grows best in full sun but is very tolerant of shade. It inhabits open areas, forests, urban areas, and wetland edges. Common buckthorn is an opportunistic species, and can flourish under openings in the forest canopy.



CONTROL

Common buckthorn can be physically removed. Small plants can be removed by hand, while medium-sized plants may have to be removed with shovels or commercial weed pullers. Larger trees can be girdled or removed with a chainsaw. Trees that have been cut back will rapidly grow back from the stems and stumps left behind. In this instance, herbicides may be needed to control new growth. Mowing smaller plants can also help keep populations controlled. Plants removed from a site should be transported in plastic bags to a waste management facility for incineration. In addition, it is important that native species be planted where invasive plants were removed from to prevent future invasions.

GARDEN ALTERNATIVES

Witch hazel (*Hamamelis virginiana*) is native to PEI. Witch hazel and common buckthorn grow to be similar heights. They both have deeply veined leaves and require full sun or part shade. Witch hazel does not produce berries, but it does produce beautiful yellow flowers which yield woody capsules.



Black chokeberry (*Photinia melanocarpa*) is native to PEI. It grows to be much shorter than Common Buckthorn (6ft at maturity). Black chokeberry prefers full sun to partial shade and produces black berries which attract many bird species. Black chokeberry also produces beautiful clusters of white flowers and displays wonderful red foliage in the Fall.

Serviceberry (*Amelanchier spp.*) is native to PEI. Serviceberry will grow to be a similar height as common buckthorn (25ft). It has a similar leaf as common buckthorn and also produces black berries, which are used as a food source by many types of wildlife. The berries are edible to humans as well! Serviceberry grows in similar conditions as common buckthorn- preferring full sun to



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 Prince Edward Island, please report your sighting to Island Nature Trust by phone or e-mail

Phone: (902) 892-7513

Email: intrust@eastlink.ca



This project was undertaken with the financial support of:

Ce projet a été réalisé avec l'appui financier de:



Environment
Canada

Environnement
Canada

Photos provided by and copyright belongs to: Beth Hoar of Green Thumb Photography, Julie-Lynn Zahavich, H.C. Williams, Walter Siegmund