

## Invasive Species

### Is it a *native*, *exotic*, or *invasive* species?

**Native = indigenous.** These are species that are found in their historical range due to only natural processes (i.e. present without human intervention). Every species has a native area. However, outside this range the same species may be considered *non-native*. For example *Acer asaccharum*, better known as Sugar Maples, are native to North America because they have been found here without human intervention.

**Exotic = alien = non-indigenous = non-native = introduced.** These are species that are found outside their native range, brought there deliberately or accidentally. For example *Acer platanoides*, or Norway Maple, is a European species of maple that was purposely introduced to North America for its high tolerance of poor quality soils and urban pollution that Sugar Maples cannot tolerate.

**Invasive = nuisance.** These are those *exotic* species that threaten or have a negative effect on the existence, abundance, or diversity of native species or environments. These species spread widely across an area and can quickly outcompete native species and alter native environments. For example, in southern Ontario Norway Maple is considered an invasive species since it is both *exotic* and outcompetes native maples leading to negative consequences for ecosystems.

**Therefore, not all *exotic* species are *invasive*.** Some exotic species may have a positive impact on an environment. For example even though *Aesculus hippocastanum* also called Horsechestnut originated in South East Europe, it is not considered *invasive* because it can co-exist peacefully with native species.

*Invasive* species are **particularly troublesome in riparian areas** due to frequent habitat destruction and how rivers are effective corridors for species dispersal. Replacing *invasive* species with native vegetation will slow the flow of water allowing for increased infiltration and less erosion, stabilize riverbanks, provide fish and wildlife habitat, and reduce water temperatures thus improving the overall health of the ecosystem.

### References:

1. Ontario's Invasive Species Awareness Program. (n.d.a.). *Invaders: Terrestrial invasive plants*. Retrieved 2014 from Ontario's Invasive Species Awareness Program: <http://www.invadingspecies.com/invaders/plants-terrestrial/>

## Invasive Species in White Willow Common

### **Glossy and Common buckthorn (*Rhamnus frangula* and *Rhamnus cathartica*) – High Priority**

**Native to:** Eurasia and North Africa, but grows wild in many parts of Southern Ontario especially close to cities.

**Introduced by:** Was introduced in the 1880s as an ornamental shrub, and also widely used in agricultural fields as fencerows, windbreaks, and wildlife habitat.

**Range:** Is present in wet areas in Canada from Saskatchewan to Nova Scotia and through to the north eastern and north central United States. Buckthorn can survive in a variety of soil types and environments, however glossy buckthorn is typically more common in wetter areas.

**Impacts:** Buckthorn is a serious and aggressive invader because it forms dense thickets through dispersing a large amount of seeds. These dense populations shade out and crowd native plants while altering soil nitrogen levels to encourage its own growth. It is also a host to the soybean aphid in winter, which can seriously negatively impact agricultural crops.

**Identification:** Buckthorn is usually 2 to 3 metres tall, but can reach heights up to 6 metres. Common buckthorn has leaves paired almost opposite, while glossy buckthorn's leaves are alternate. Both varieties have shiny, dark green leaves (with glossy buckthorn being more smooth and slender) and produce clusters of berry-like black fruit in the late summer and fall.

**Removal process:** Smaller seedlings and their root systems can be removed by hand. Seedlings larger than 1cm in diameter should be removed with an extractigator to ensure their entire root system is removed. Once removed, place in the garbage bags provided.



#### References:

1. Ontario's Invasive Species Awareness Program. (n.d.b.). *Terrestrial invasive plants: Common buckthorn*. Retrieved 2014 from Ontario's Invasive Species Awareness Program: <http://www.invadingspecies.com/invaders/plants-terrestrial/common-buckthorn/>