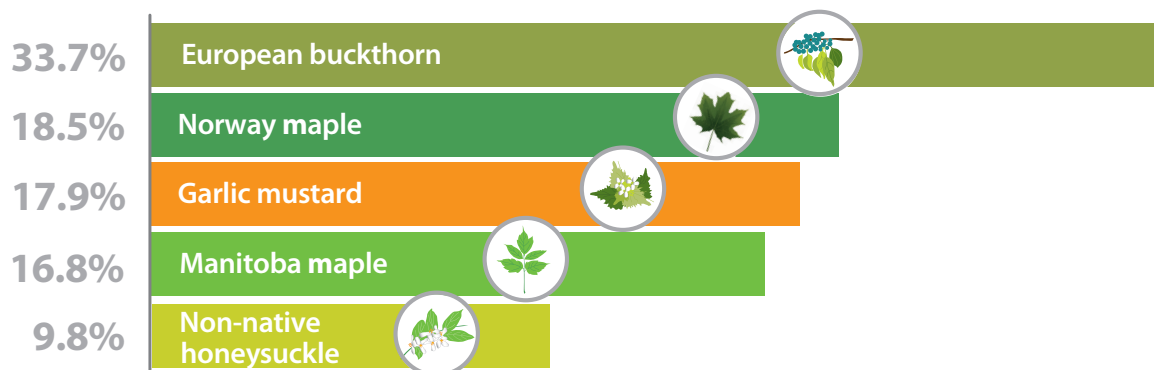


# Invasive Species in Richmond Hill



Invasive species, not native to Ontario, can displace native species, spread easily and negatively alter habitat characteristics. Such effects can shift the species composition in natural areas, impact wildlife populations, and reduce the ecosystem services and benefits provided by our natural areas.

## Top Five Invasive Plant Species on Sites in Richmond Hill



## Three Most Abundant Invasive Plant Species Observed in Richmond Hill



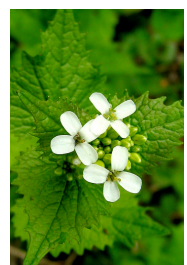
### European buckthorn

- In fields and forests, buckthorn grows very densely. It outcompetes native plants by releasing a toxin into the soil. Buckthorn can establish nearly anywhere in urban or rural settings because of its tolerance to stressors such as drought or poor soil conditions.
- Buckthorn can be managed by manually pulling seedlings and saplings by hand or weed wrench. For larger trees, professionals should be consulted for removal and treatment.



### Norway maple

- Native to Europe and western Asia, and historically one of the most planted trees in Ontario, Norway maples were brought to North America due to their ability to tolerate pollution.
- The Norway maple has escaped into natural settings where its dense canopy, shallow roots and seed production outcompete native plants, including native sugar and silver maples.
- When selecting a tree for your property, select a native tree species as they provide much more value to the city's urban forest than exotic invasives.



### Garlic mustard

- Historically introduced as a garden herb, garlic mustard has spread into mature forests and surrounding areas. It outcompetes and limits the growth of native species by changing the chemistry of soils around it.
- Garlic mustard can be managed by carefully hand-pulling smaller populations or mowing larger populations prior to flowering on an annual basis for several years until eradicated.

## Three Most Invasive Pests and Diseases of Concern in Richmond Hill



### Emerald ash borer (EAB)

- EAB is an invasive beetle that is native to eastern Asia and China. The species bores into native ash trees and feeds on the inner bark. Once EAB has infested an ash, the tree typically dies within 2 to 3 years.
- Ash wood shouldn't be moved to a new location since larvae can survive in firewood and can start a new infestation.



### Spongy moth

- Spongy moth (also known as *Lymantria dispar dispar* or LDD moth) is a naturalized invasive insect found throughout southern Ontario that feeds on a variety of tree species such as oak, birch and maple.
- Spongy moth caterpillars eat leaves causing trees to lose some or in extreme cases, all of their leaves. Since deciduous trees can regrow their leaves after being damaged by spongy moth, long term effects can be reduced or prevented through a number of control options.
- Management techniques include removing egg masses in spring and fall or using burlap banding around tree trunks beginning in May to help collect and dispose of caterpillars.



### Beech bark disease (BBD)

- BBD is the product of an insect and fungus interaction. An invasive beech scale insect, introduced from Europe, creates openings for fungus to infect beech trees. This disease causes cankers along the trunk of beech trees, eventually leading to the tree's death.
- Efforts should be made to limit the spread of BBD by not moving firewood.

## Species to Look Out For



### Hemlock woolly adelgid (HWA)

- HWA is an aphid-like insect native to Japan that targets and kills hemlock trees by attaching to branches and feeding at the base of needles taking nutrients and sap. This characteristic powdery white egg sac, which look like cotton or snow, are the main sign of HWA presence, most obvious in April and May.
- HWA has been found in Ontario in Etobicoke in 2012 and Niagara Falls in 2013. It has also recently been found in Fort Erie 2021 and Northumberland County in 2022 and is an active concern that should be monitored.
- If spotted, please report to the Canadian Food Inspection Agency (CFIA) promptly so that immediate management actions can be completed effectively. **Please contact CFIA at [cfia.surveillance-surveillance.acia@canada.ca](mailto:cfia.surveillance-surveillance.acia@canada.ca) or 647-790-1100.**

Richmond Hill works to protect our community's trees which are important for our quality of life today and for the future. The City controls the removal of trees on private property through our Tree Preservation By-law. You may require a permit to undertake tree work on your property. If you have any questions about removing trees with a diameter of 20 cm or more, visit [RichmondHill.ca/TreePermit](https://RichmondHill.ca/TreePermit) or contact Access Richmond Hill at [access@richmondhill.ca](mailto:access@richmondhill.ca) or 905-771-8800. For more information on these invasive species and others impacting our urban forests, visit [RichmondHill.ca/InvasiveSpecies](https://RichmondHill.ca/InvasiveSpecies).



For more information visit [RichmondHill.ca](https://RichmondHill.ca)