

Invasive Plants 101

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Not all plants are created equally; at least not when we are moving them around the planet, and not when we consider the ecological, social and health impacts of exotic or “alien” plants (plants that originate someplace else).

It is when species – plants, birds, mammals, insects or even viruses – have the potential to cause environmental, social or economic harm, that they are considered “invasive.” Species become invasive because they don’t have the same limits on their spread they would have in their native range; limits like disease, predators and climate.

Ontario has more invasive species (including plants) than any other Canadian province. This is due to the province’s large and mobile population, a long history of industrialization, and several ports of entry.

Plants have been brought here from far reaches of the globe to be used in gardens, aquariums, and for food, and erosion control. Through accidental or deliberate release, many of these have become established in our native ecosystems.

What Plants Are Invasive?

A couple of plants tend to come to mind when we think of invasives. Purple loosestrife (*Lythrum salicaria*), which was originally brought here from Europe for early settlers’ flower gardens, became a “poster child” for invasive plants, when after many decades in North America, it began to overrun wetlands, shorelines, and pastures.

Another plant that is becoming all too common in Ontario is Garlic Mustard (*Alliaria petiolata*), a plant brought over from Europe as a culinary herb, which now covers large swaths of forests and roadsides.



Invasive plants, Garlic Mustard (*Alliaria petiolata*) foreground and invasive Honeysuckle (*Lonicera*) background, alongside a recreational trail. Photo by: Danielle Tassie

Invasive plants adapt well to disturbed habitats, and in some urban and suburban areas, they may even be the dominant plant. European Buckthorn (*Rhamnus cathartica*), Himalayan Balsam (*Impatiens glandulifera*), Japanese Knotweed (*Fallopia japonica*) and Dog-strangling vine (*Cynanchum rossicum*, syn. *Vincetoxicum rossicum*) are not only the stuff of property owners’ nightmares, but also increasingly common sights in disturbed areas like roadsides, old fields, along trails and forests and in urban and suburban back yards.

About the OIPC:

The Ontario Invasive Plant Council is a collaboration of organizations and individuals with the common goal of working together to ensure Ontario’s biodiversity, economy and society are protected from the adverse impacts of invasive plants. For more information, including how to become a member of the OIPC, please visit: www.ontarioinvasiveplants.ca

Impacts of Invasive Plants

The impacts of invasive plants can be devastating to forests, wetlands, meadows, parks, agricultural lands, and to fish and wildlife habitat.

From an ecological perspective, invasive plants, like all invasive species, threaten biodiversity. Without the natural controls of their ecosystems, exotic invasive plants can grow rapidly and out-compete native wildlife and plants for space, sunlight, water, and nutrients. This is true of both terrestrial and aquatic species.

In his book “Bringing Nature Home. How You Can Sustain Wildlife with Native Plants”, Professor Douglas Tallamy illustrates the poor relationship that exotic invasive plants have with our native wildlife and insects. In other words, plants that have evolved in a far off ecosystem do not provide much in the way of food, shelter or habitat for species already established here. Referring to plants imported for their horticultural value, Tallamy further illustrates the problem “..... many of the alien plants that have succeeded in North America are a subset that were imported specifically because of their *unpalatability* to insects”.

Invasive plants also come with a hefty price tag. Everything from monitoring for them, prevention measures, management, removal, and restoration costs, add up to big money for conservation organizations, governments, land managers and home owners. In some cases, they can even affect property values.

Invasive plants can impede our use of natural areas, reducing recreational activities such as fishing, boating, swimming, and hiking. There is an aquatic plant called Water soldier (*Stratiotes aloides*), commonly sold in garden and aquarium stores, which has been found along the Trent River in central Ontario. This large plant, that looks a lot like Aloe Vera, has long, sharp serrated edges that pose a risk to swimmers, as well as forming dense stands that impede boating and angling in an area that relies heavily on tourism and recre-

ation. In some extreme cases, invasive plants also bring health risks. The headline grabber in this category is Giant Hogweed (*Heracleum mantegazzianum*); a plant in the carrot family that can grow 6 meters tall and contains a sap that causes burn like rashes, and even blindness!

Bullies in the Garden

The invasive plants closest to home for most of us are those in our gardens. Horticultural standards like Periwinkle (*Vinca minor*), English Ivy (*Hedera helix*), and Goutweed (*Aegopodium podagraria*) look great in the flowerbeds, but if they escape the confines of our yards, they can wreak havoc on ravines, shorelines and forests.

This photo from the City of Toronto shows a ravine that has been overrun by Goutweed, crowding out native plants, and offering little food or habitat in return.



This picture shows an area infested with English Ivy. Infestations like the ones in these photos are often the result of dumping of yard waste, or plants spreading through seeds or roots into nearby natural areas.



Photo by
Chris Evans,
Bugwood.org

The good news is that increasingly, we are becoming aware of the issue and the steps we can take to prevent the spread of invasive plants. Governments and conservation organizations are creating policies and strategies to address invasive plants. There is much we can do as individuals as well. In the garden, for example, there is no shortage of beautiful native and non-invasive plants that can be used in place of more harmful horticultural invasives. We've mentioned a few of the invasive ground covers readily available—Goutweed, Periwinkle and English Ivy. There are native alternatives to these that can serve the same purposes in the garden, without the invasive potential; plants such as Wild ginger, Wild strawberry, Running euonymus and Canada anemone, to name just a few.

Trees can also be invasive, and many of the species we see in our cities and towns, are exotic species chosen because they are hardy, drought and pest tolerant and able to adapt to a variety of conditions. Unfortunately, these are also the traits that allow a plant to become invasive. Norway maple is just one example, and landowners considering planting a tree are encouraged to look to the native maples, such as Silver or Sugar (*Acer spp*) or Hackberry (*Celtis occidentalis*). These shifts in gardening choices may seem small, but they are a very important step in preventing the often irreversible impacts of invasive plants!

What You Can Do to Prevent the Spread of Invasive Plants:

Learn to identify and manage invasive plants on your property. Remove plants early, when the infestation is small and manageable.

Dispose of yard waste in the garbage. Never dump unwanted plants into natural areas.

Garden with native or non-invasive plants. Download a copy of the OIPC's Grow Me Instead guides for Northern and Southern Ontario. The guides give you a list of horticultural plants with invasive potential and offers non-invasive alternatives for similar uses and habitats. <http://www.ontarioinvasiveplants.ca/index.php/gardenersandhorticulturalists>

Watch our Garden Invaders & Garden Savers video series, which introduces you to common horticultural invasives and their non-invasive alternatives! <https://www.youtube.com/user/Oninvasives/videos>

Look Before You Leave! Invasive plants can be spread to new areas through hiking and camping gear, boots, pets, recreational boats, and firewood. Inspect and clean equipment before travelling into a new area, and buy firewood locally.

Download Ontario's Best Management Practices for help with identification and controlling of invasive plants. <http://www.ontarioinvasiveplants.ca/index.php/managecontrol>