

Are Aliens Lurking in Your Backyard?

MAKE A PLANT INVENTORY

Visit your local library to find field guides of Canadian trees, shrubs, vines and flowers and then head out into your yard or a nearby park to discover what's growing.

Since many guides list where plants originally came from, you can identify plants native to Ontario and those which are invasive aliens.

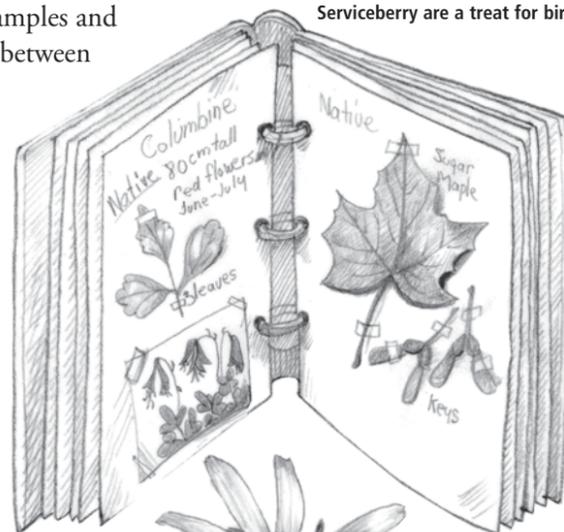
If you have a digital camera, take a photo of each plant. Collect a few leaf samples and dry the leaves by placing them between sheets of newspaper, weighing them down with books.

After a week or two, most types of leaves will be dry and flat. Mount your photos and leaf samples in a notebook. Throughout the season, record observations such as the height and colour of the plant, length of the leaves, when the flowers bloom, what species visit the plant and how much it spreads during the growing season.

Periwinkle (above) and Goutweed (below) are common garden groundcovers that can crowd out native plants and do not provide a significant food source for any native wildlife species.



The berries of the native shrub Serviceberry are a treat for birds.



Black-eyed Susan is a native wildflower that blooms in August.

ONTARIOPOWER
GENERATION

OPG is committed to conserving biological diversity and protecting nature

Invasive Plants Mean and Green

Some call them exotic, others non-native or even alien, but whatever you call them, invasive species are a threat to our natural ecosystems.

Invasive species are brought into an ecosystem that is not their native habitat. In the case of plants, they can be moved into an area on purpose or by accident. Like all other species, these new invaders compete for resources such as sunlight, nutrients and water, causing stress and pressure on the ecosystem. In many cases native species are unable to compete with the non-natives, which tend to thrive since they usually lack natural predators. Our native species eventually decline in number and may actually be forced out of their natural habitats.

When Europeans first began colonizing Canada, they brought with them familiar flowers, vines, shrubs, trees and vegetables. Alien species were introduced by accident when mixed in with crop seeds or stowed away in soil used to help weigh down ships to make them more stable and less likely to rock in the choppy ocean waters. Although some exotic species cannot survive our harsh winters, others thrive and flourish. Some of these species have

exploded to the point where they are threatening the existence of the native plants that have lived in Canada since long before Europeans settled the region.

The problem with non-native, invasive species doesn't just stop with the competition of one plant for another plant's resources. These alien species have the potential to threaten the entire food chain. Most of our native insect species and other plant-eaters specialize in dining on only a few different plant species. If the type of plant they feed on declines as a result of increased competition from invasive species, then the number of these creatures will decrease as well. With fewer insects, there will be less birds, amphibians, reptiles and insect-eating mammals that rely on those species for their food.



Dog-strangling Vine





Dog-strangling Vine

Invasive plants can be devastating to an ecosystem since they reduce biodiversity — the number of different species found in a habitat. Healthy habitats are diverse and have many different types of species.

Invasive plants tend to grow quickly, generate large numbers of seeds and spread rapidly, choking out other forms of vegetation.

They are resilient and able to adapt and grow despite natural occurrences such as wind and water erosion, and human-induced disturbances such as clearing the land for housing developments and agriculture. In fact, these events are actually beneficial to some types of invasive species. Native plants are often not able to survive in places where the soil is compacted or in areas that are damaged due to high levels of pollution. Invasive species are opportunistic and take over these landscapes, altering the natural habitat for many other species.

Did you know...

dog-strangling vine was introduced to the Toronto area from an experimental farm near Ottawa where it was being studied for use as life jacket filling?

Dog-strangling vine is a perennial meaning that it will regrow each year without having to be planted. Also known as "swallowwort," its stems can be up to two metres in length and twist and turn around other plants for support. This vine can grow in sun or shade but it does not flower or spread as widely in the shade. Its oval leaves are pointed and flowers are pink or maroon in colour. Flowers bloom from late-May until the middle of July and produce seed pods that look similar to milkweed pods. The pods release their seeds from the middle of August until early November. Seeds are carried by the wind and can produce large, dense patches of dog-strangling vine in locations far from the original plants.

The dog-strangling vine can reproduce and spread by its seeds and its massive underground network of roots. Because of its extensive root system, pulling it out of the ground will not prevent it from spreading. Carefully digging the entire plant out of the ground at the time flowers appear is one of the most effective non-chemical ways of reducing the spread of this invader.



Common Buckthorn

Common buckthorn is a shade-producing shrub that slows the growth of other species. European buckthorn, as it is sometimes called, was introduced as a garden shrub but has since spread to woodlands, pasture land and can be found along the sides of roads and highways. It grows as a bushy tree or multi-stemmed shrub that can be up to six metres high. The plant gets its name from the short, sharp thorn that grows at the end of branches that are more than one year old. Its oval leaves stay green much longer than most of the native species in Ontario. The bark of this shrub is shiny and greyish-brown and the female trees have clusters of dark purple berries. The berries are very juicy and each contains up to four small, hard seeds. Berries may stay on the plant into the winter and are an important food source for many species of birds and mammals when other food is scarce.



Garlic Mustard

Once ingested, the seeds pass unharmed through the digestive tract where they may germinate far from the original plant. **Garlic mustard** is an invasive species found throughout the shady deciduous forests and rich garden soils of southern Ontario. This native European species is one of the first to sprout in the spring, shading our slower-growing native species and competing with them for nutrients. When the leaves are crushed, a strong garlic scent is created, giving this plant its name.

Did you know...

garlic mustard was intentionally brought to Ontario and was once extensively used in cooking and to treat breathing and lung conditions such as bronchitis and asthma, and skin conditions such as eczema and minor cuts and scrapes.

Invasive plant species are not only found in our woodlots and hedgerows, they can also grow in aquatic environments.

Early settlers brought **purple loosestrife** to North America as garden plants because of its beautiful purple flowers. Purple loosestrife has a two-metre-tall flower spike that is actually made up of many, tiny individual flowers. The plants must be pollinated by insects such as bees or hummingbirds in order for the flowers to form. Flowers usually bloom from late June until early September.

When the flowers wither and die, a small seed capsule is left in their place. A mature plant can have more than 30 flowering stems, which are capable of producing a whopping 2.7 million seeds each year! Each seed is the size of a grain of sand and is easily spread to new regions by wind, water, mammals and people.



Purple loosestrife can quickly overtake wetlands, reducing the number of different plant species found within this ecosystem. Since wetlands are important habitats for countless birds, fish, reptiles, amphibians, mammals and insects, invasive species are particularly destructive in these regions.

You can help reduce the spread of purple loosestrife by digging out the plants in June or July when they are easily recognizable and before they go to seed. Plants should be placed in plastic bags and disposed of in a landfill, or burned so the seeds cannot germinate or spread to other areas.

The alternating heart-shaped leaves and white flowers of the stalk make it easy to identify. By late June, most of the leaves of the garlic mustard plant have died and all that remains is the dead stalk and pale brown seed pods that can stay attached until the end of the summer.

Did you know...
garlic mustard leaves can be eaten and were once extensively used in salads.

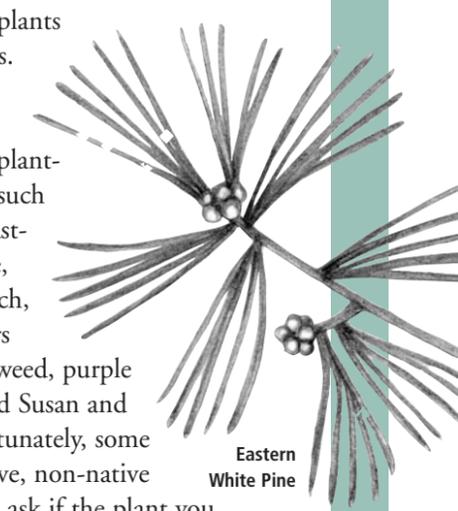
Garlic mustard is mainly spread by seeds. The shiny black seeds are produced in June in a four-sided pod that becomes papery brown when mature. A small plant produces only about 10 seeds while a large, well-established plant can produce over 2,700 seeds. The heavy seeds are not easily carried by the wind so they are primarily dispersed by humans, other mammals and birds. White-tailed deer, a native species, feeds on garlic mustard and, in doing so, helps to spread and propagate it through their scat. The seeds can remain dormant for up to five years until conditions are ideal for them to germinate. For this reason, it is important to check well-established garlic

mustard plant areas after the initial plants have been removed to be sure that new plants are not sprouting. The best way to prevent the spread of this alien invader is to pull out the entire plant, roots and all, as soon as it is detected, and preferably before the seed pods have formed. If the soil is moist, plants are easily removed but may re-sprout if parts break off, so be sure all of the roots are removed.

Stop the Alien Invasion

You can accidentally move species from one habitat to another by tracking seeds caught in clothing, your pet's fur or stuck in the treads of your shoes. When you are moving between habitats, be sure to check your clothing for seeds or other parts of plants to avoid introducing non-native species to another habitat. Moving firewood or soil from one location to another can also introduce invasive plants and insects into new regions.

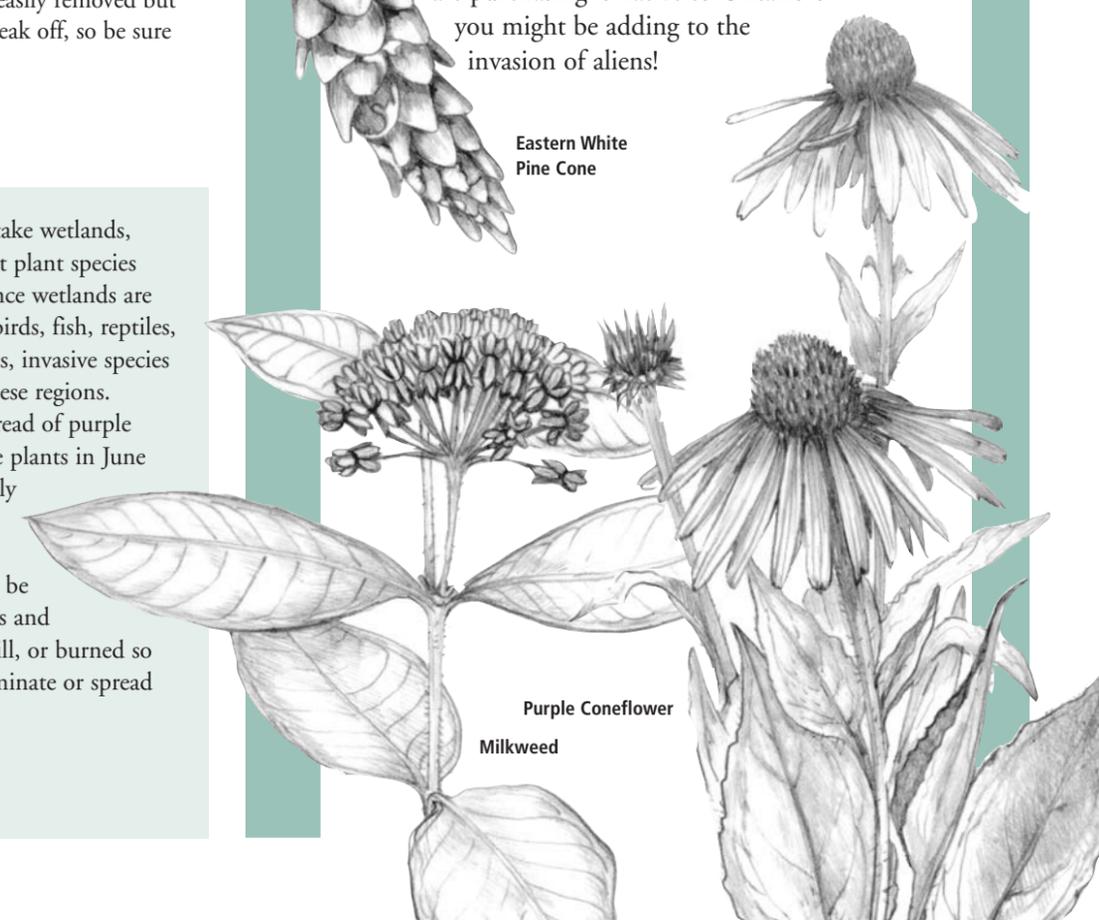
You can help stop the spread of alien species by planting native trees and shrubs such as: serviceberry, red pine, eastern white pine, sugar maple, red osier dogwood, grey birch, and native flowers such as red milkweed, purple coneflower, black-eyed Susan and butterflyweed. Unfortunately, some nurseries carry invasive, non-native species, so be sure to ask if the plant you are purchasing is native to Ontario or you might be adding to the invasion of aliens!



Eastern White Pine



Eastern White Pine Cone



Purple Coneflower
Milkweed