

*The Couchiching
Conservancy*



Regional Invasive Plant Guide



2023 Edition

Acknowledgments

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Cover photo credits:

Dog-strangling Vine..... Dorthea Hangaard
Phragmites..... David J. Hawke
Garlic Mustard..... Aiesha Aggarwal

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There are many invasive plant species in the Couchiching Region. Please familiarize yourself with the plants in this guide and always report them to Conservancy staff when you see them on one of our properties, noting the location as accurately as possible.

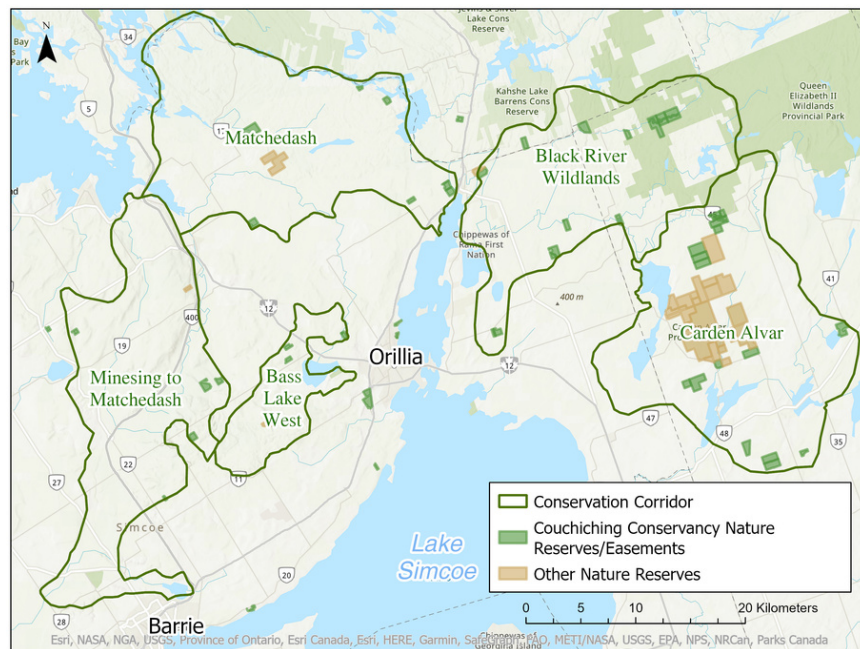
The Couchiching Conservancy acknowledges that we operate on the traditional lands of the Anishinaabeg. We value their knowledge, recognize their history, and honor their commitment to the land.

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How to Use This Guide

This guide was developed by Couchiching Conservancy staff and volunteers for invasive plant identification in the areas that The Couchiching Conservancy serves within Central Ontario. Areas include Carden Alvar, Kawartha Lakes, Black River Wildlands, Georgian Bay Coast, Matchedash, Minesing, and Bass Lake. This is not meant to be an exhaustive guide to all invasive plants in the region. Rather, it contains invasive plants with the potential to do the most damage to our natural areas and Nature Reserves.



We hope you will use this guide as a reference when exploring natural areas and developed areas alike. If you spot one of these plants on a Nature Reserve, please document the location, take a picture, and let us know. We actively map invasive species and strive to control their spread. We also hope that this guide will help you make informed choices about plants on your own property. Too many invasive plants began as seemingly harmless garden ornamentals.

Note that control methods are not described in this booklet because control can be expensive and labour intensive. Some plants are toxic, and some require chemical intervention due to their hardiness and vigour. We use Ontario Invasive Plant Council Best Management Practices and recommend you seek advice before tackling invasive species on your own.

Japanese Knotweed

(Reynoutria japonica)

Japanese Knotweed is a perennial plant native to east Asia. It was originally brought to North America in the 1800's as an ornamental plant and was later planted to assist in erosion control. It has since become an invasive species in Ontario. Japanese Knotweed forms dense stands that crowd out native vegetation and degrade habitat. The plant also spreads rapidly, with a single root fragment being enough to propagate a new plant. This is especially problematic as Japanese Knotweed frequently establishes along stream banks, where root fragments can be carried a great distance by the water.

Identification

- Semi-woody hollow stem that reaches between 1-3 m in height.
- Stems are purple-red to green in colour and resemble bamboo.
- Leaves are oval-shaped with a flat base and a pointed tip, they grow between 3 and 6 inches long.
- Flowers are pale green to white and grow in long clusters, eventually forming small white fruit with wings that aid in wind dispersion.



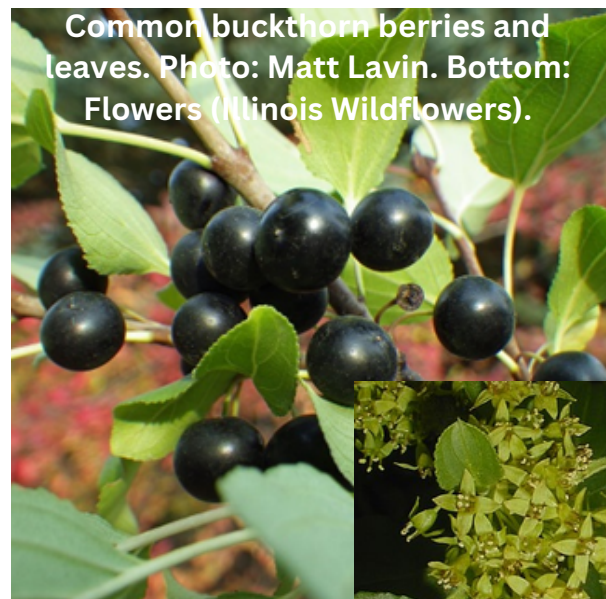
Common & Glossy Buckthorn

(*Rhamnus cathartica* & *Frangula alnus*)

Common Buckthorn and Glossy Buckthorn are shrubs native to Eurasia and were brought over to Canada in the 1800's as ornamental plants for use in hedgerows, as well as agricultural windbreaks. Both species have long since escaped and become invasive in Ontario. Both species can form dense stands that shade out native plants and impact soil quality to favour their growth over that of native species.

Common Buckthorn

- Leaves out in early spring and keeps leaves through to late fall.
- Grows in dry areas and often reaches a height of 3 m.
- Twigs and branches often end in a single, short thorn.
- Smooth, dark green leaves with very fine teeth arranged in opposing pairs along the stem. Leaves are 2.5 to 6 cm long.
- Produces clusters of black berry-like fruit in late summer and fall.



Common buckthorn berries and leaves. Photo: Matt Lavin. Bottom: Flowers (Illinois Wildflowers).



Glossy Buckthorn

- Grows in wet areas and tends to reach a height of 3 m.
- Twigs and branches do not end in a thorn.
- Leaves are shiny with smooth, wavy edges and are arranged in an alternating pattern along the stem. Leaves are 1 to 3 cm long.
- Produces pea-sized berries in mid-summer and early autumn that change in colour from bright red to dark purple as they ripen.



Glossy buckthorn berries and leaves. Photo: Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database. Top: Flower (Illinois State Univ.).



A glossy buckthorn sapling without foliage.
Photo: David J. Hawke.

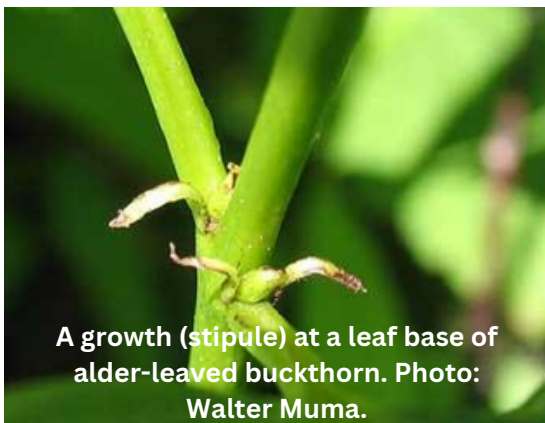


Common buckthorn with foliage. Note the thorns at the end of the twigs.
Photo: Grant Mask.

Native Alder-leaved buckthorn grows in very wet areas, only reaches 1 m in height, does not have sharp thorns on the ends of twigs, has alternate shiny leaves with toothed edges, and has small growths at the bases of leaves. It can be easy to mistake this plant for invasive buckthorn without close inspection.



Alder-leaved buckthorn with berries similar to common buckthorn.
Photo Peter Dziuk, Minnesota Wildflowers.



A growth (stipule) at a leaf base of alder-leaved buckthorn. Photo: Walter Muma.



A stand of alder-leaved buckthorn.
Photo: Peter Dziuk, Minnesota Wildflowers.

Tatarian Honeysuckle

(*Lonicera tatarica*)

The Tatarian honeysuckle is our most common invasive honeysuckle. However, the Amur and Morrow's honeysuckles are also present in this region. The Tatarian Honeysuckle is native to southern Russia and central Asia. The berries are toxic and can cause diarrhea, vomiting, and abdominal pains. Invasive honeysuckles will reduce light and nutrient availability to neighbouring plant species. Their berries do not offer as many nutrients as native species to birds. They are allelopathic—which means that they will produce toxic chemicals into the soil in order to prevent other species from growing.

Native honeysuckles are diverse, but distinguishable from invasives. You may also find invasive Amur and Morrow's honeysuckle in this area.

Identification

- Flowers are white to dark pink.
- The stems are hollow.
- The leaves are opposite, and egg shaped.
- Can grow up until 5 meters tall and is a multi-stemmed deciduous shrub.





Native Northern bush honeysuckle (*Diervilla lonicera*). Photo: Ontario Native Plants.



Native glaucous honeysuckle (*Lonicera dioica*). Photo: Northern Ontario Plant Database.



Native Canada fly honeysuckle (*Lonicera canadensis*). Photo: borealforest.org.



Native hairy honeysuckle (*Lonicera hirsuta*). Photo: borealforest.org.



Invasive Amur honeysuckle (*Lonicera maackii*). Photo: Bill Johnson.



Invasive Morrow's honeysuckle (*Lonicera morrowii*). Photo: Bill Johnson.

Invasive Periwinkle

(*Vinca minor*)

Native to Europe and Asia, periwinkle was introduced into North America in the 1700s as a garden plant. It is often found in high moisture soil such as forested areas or water courses and is shade tolerant. Forms dense mats that suppress native plant species found on the forest floor. The leaves are toxic to most grazers and the seeds are too small for birds to consume.

Identification

- Flowers have 5 petals and are a white or blue-purple colour.
- It is an evergreen vine-like plant with dark green glossy leaves typically pointed.
- Can reach up to 15 cm tall.



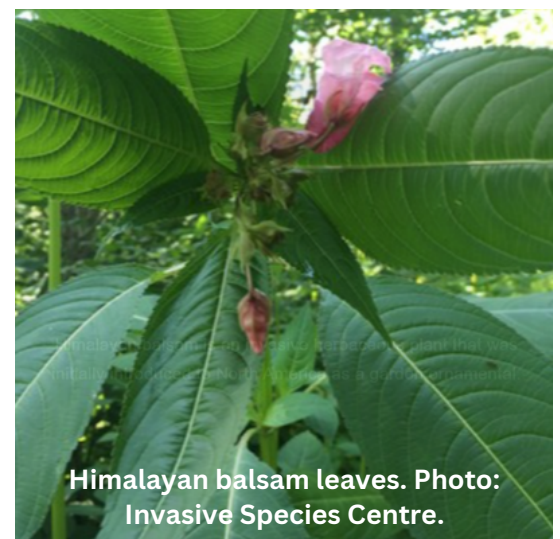
Himalayan Balsam

(*Impatiens glandulifera*)

Himalayan balsam was introduced to Canada as an ornamental plant. It grows tall and thick, replacing native perennials along stream and river banks. This can lead to erosion, loss of biodiversity, and loss of soil nutrients. These plants produce a large amount of nectar, and you will often see a larger number of insects present during flowering. Plants grow and spread quickly after emergence in spring. They flower throughout the summer.

Identification

- Plants grow 1-3 m in height.
- Stems are soft green, sometimes with a red tinge.
- Leaves are toothed and 5-23 cm long.
- When crushed, foliage smells strongly musty.
- Glands are placed below leaf stems and produce sweet-smelling sticky nectar.
- Flowers are pink, hood shaped, and 2 cm broad by 3-4 cm tall.
- Seeds are in capsules of up to 16 seeds that explode when touched to disperse.



Purple Loosestrife

(*Lythrum salicaria*)

Purple loosestrife can be found in riparian and wetland habitats. Plants can add excess nutrients to water through their fast decomposition rates in the water which changes wetland chemistry and leads to eutrophication downstream. This decreases biodiversity, reduces pollination of native plants, and alters food web structure. The presence of purple loosestrife can even reduce water levels. When native plants are edged out by purple loosestrife, This plant usually flowers June –October.

Identification

- Plants grow 60-120 cm tall.
- May have 1-15 square stems.
- Stems may be branched, evenly spaced, and have smooth fine hair.
- Leaves are lance-shaped and narrow with fine hairs and have smooth edges, usually 3-12 cm long.
- Leaves turn to bright red in Autumn.
- Flowers are deep pink to purple, may rarely be light pink or white.
- Seeds are tiny and round in capsules that are 3-6 mm long and 2 mm wide.



Goutweed

(Aegopodium podagraria)

Goutweed is a perennial plant that was introduced to Canada sometime in the early 1900s. It is also called bishop's goutweed, ground elder goutweed, Herb-Gerard, dog elder, and English masterwort. Goutweed is a master at establishing and spreading. It can survive in shady areas and infertile soils, outcompete native plants, and even invade the canopy in forests. Eventually goutweed excludes native plants, even tree saplings. Unfortunately, gardeners still use this plant but it can easily escape cultivation. Goutweed is incredibly difficult to control and often enters natural areas through garden waste or unruly gardens.

Identification

- Leaves are compound and divided into 3 groups with 3 leaflets each.
- Leaflets are oval with a pointed end and toothed.
- Some plants are fully green while others are variegated with light green and white.
- Plants can be 0.4- 1 m tall with sometimes branching stems.
- Flowers are white and arranged in flat umbrels that are 6-12 cm wide.
- Umbrels can have up to 25 individual flowers and bloom June –August but won't bloom in shady areas.
- Roots are branching white rhizomes that can be very extensive.



Norway Maple

(Acer platanoides)

Norway Maples are common across North America as street trees because of their hardiness and attractiveness. However, they can become destructive upon spreading into natural areas because they cause dense shade that prevents many native plants from growing beneath them. They can also cause destruction of structures like home foundations, pipes, and roadways. While they have been in North America since the 18th century, many municipalities and nurseries are finally recognizing the Norway Maple's potential for invasion.

Identification

- Medium height tree of 6-22 m tall.
- Wide, round, symmetrical crown.
- Seeds are in winged key shape with wings 180 degrees wide (lay flat).
- Young trees have smooth gray bark while older trees have gray bark with intersecting ridges.
- Leaves have 5-7 lobes.
- Flowers are yellow- green and have five sepals. They emerge before the leaves.
- Milky sap discharge when leaf petiole is broken, unlike native Maples.



Dog-strangling Vine

(*Vincetoxicum rossicum* & *Vincetoxicum nigrum*)

The common name Dog-strangling Vine refers to two species of perennial climbing vines that were originally native to Eurasia. These plants were originally brought over to Canada as ornamental garden plants and have since escaped and become invasive. Dog-strangling Vine forms dense stands that crowd out native plants, and their climbing habit means they often choke the life out of the plant or shrub that they use as a trellis. Dog-strangling Vine also negatively impacts the population of Monarch Butterflies, a species at risk in Ontario.

Identification

- Climbing vine that grows 1 to 2 m tall by twining onto other plants or structures.
- Leaves are relatively large (7 to 12 cm long) and oval shaped with a pointed tip, growing on opposite sides of the stem from one another.
- Grows clusters of small flowers that are pink to purple in colour. The individual flowers are star-shaped with five petals each.
- Produces bean-shaped seed pods. These pods grow between 4 to 7 cm long and open in late summer. Seeds are similar to that of the milkweed as they are feathery white and disperse by wind.



Yellow Iris

(Iris pseudocorus)

Also called the yellow flag iris, yellow water iris, and pale yellow iris, this plant was introduced in the early 1900s to Newfoundland and arrived in Ontario by the 1940s. It originates in Eurasia and Northern Africa. This plant can quickly become a problem in wetland and riparian areas because it can form very dense root mats that exclude native plants, including the blue flag iris. Eventually, it can convert aquatic areas to wet meadows and forest by altering the hydrology of these areas. Yellow irises are toxic to eat and can cause skin irritation. Economically, these plants also cause damage by clogging irrigation and storm water drains.

Identification

- Up to 1.5 m tall.
- Leaves are broad, flat, and pointed at the tip, and overlap in clusters at the base.
- Leaves are 50-100 cm long and 1-3 cm wide.
- Flowers stalks are 50-100 cm tall and can have 2-3 flowers.
- Flowers can be pale yellow to orange, but are usually bright yellow. They can be 8-10 cm wide.
- Fruits are glossy, green, and leathery with 6 sides 4-8 cm long and 5-8 mm wide.
- Seeds are flat discs that are smooth and brown with a hard seed coat. They float in water.
- Roots are thick. Pink, branching rhizomes, sometimes with black sap.



Yellow iris flower, bud, and leaves. Photo: Ontario's Invasive Species Awareness Program.



Dense stand of Yellow irises in a wetland. Photo: Ontario's Invasive Species Awareness Program.

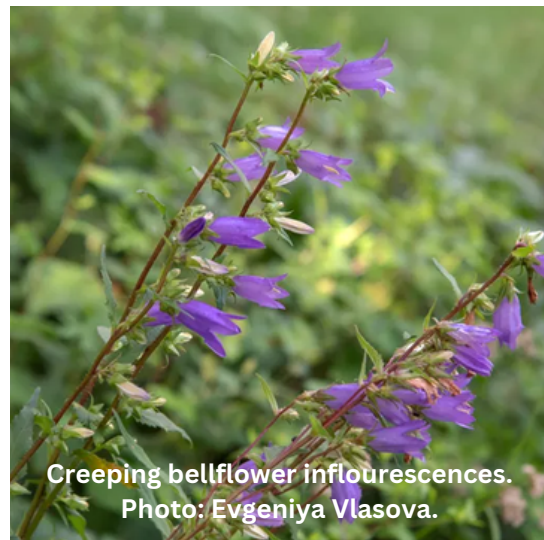
Creeping Bellflower

(Campanula rapunculoides)

Creeping bellflower was introduced as an ornamental flower from Europe and can spread via seeds and root rhizomes. It is capable of creeping under fences and barriers and is resistant to herbicides, making it very difficult to get rid of. It can also spread from root fragments and dropped leaves. This plant can very quickly take over an area and choke out other plants.

Identification

- Up to 1 m tall.
- Light purple bell-shaped flowers similar to harebell, but larger.
- Flowers occur on one side of the stem.
- Stems are green with some purplish tinge.
- Leaves are 3-7 cm long, heart shaped, and toothed. They alternate around the stem.
- Seeds are light brown and elliptical shaped with small wings in a capsule and very prolific.



Invasive Daylily

(*Hemerocallis fulva*)

Also called the Common or Orange Daylily, this plant has been popular with gardeners. It was brought to North America in the late 1800s as an ornamental flower because of its hardiness and showy blooms. The buds and flowers are also edible with a peppery spicy-sweet taste. Despite their appeal, day lilies can become invasive in many habitats, especially wetlands, meadows, floodplains, and forest edges. They most commonly escape gardens or enter natural areas via garden waste. The tubers multiply very quickly to establish dense patches that displace native plants and animals. They are very difficult to control once established. These should not be confused with Canada lily (*Lilium canadense*), wood lily (*Lilium philadelphicum*), or Turk's Cap Lily (*Lilium superbum*).

Identification

- Leaves are long and linear, curving towards the ground.
- Plants can grow 60-120 cm tall.
- Flowers are large, showy and orange. Sometimes they have yellow or a striping pattern. Flowers may be clustered but will open one at a time.
- Thick tuber roots that spread.



Invasive Lily of the Valley

(*Convallaria majalis*)

Lily of the Valley is native to Asia and Europe. It was brought to North America as fragrant perennial garden flower. However, it is highly toxic if eaten because it contains cardiac glycosides. It can easily escape gardens and garden waste to take over forested areas. Lily of the valley can grow in stands dense enough to exclude native plants. The invasive Lily of the Valley can easily be confused with the native American Lily of the Valley (*Convallaria montana*) which grows in the southern Appalachian Mountains of the United States. Fortunately, distinguishing the two species is unnecessary in Canada. Occasionally this plant is mistaken for native False Lily of the Valley, also called Canada Mayflower.

Identification

- Perennial that emerges in early to mid spring.
- Flowers late spring to mid summer.
- Stems grow 15-30 cm tall
- Plants have 1-2 long leaves with parallel veins.
- Flowers are on a single raceme and resemble small white bells (5-10 mm in size).
- Fruits are red-orange berries 5-7 mm in size.
- Form extensive monoculture stands.



Invasive Lily of the Valley.



Native False Lily of the Valley, also called Canada mayflower (*Maianthemum canadense*). Photo: Timothy Valentine.

Wild Parsnip

(*Pastinaca sativa*)

Wild Parsnip is native to Europe and Asia, and was likely brought over to North America by settlers as a food source, as the root of the plant is edible. It has since become an invasive species across the continent. It has spread throughout eastern and southern Ontario, and appears to be heading westward as well. Wild Parsnip can form dense stands that crowd out native plant life. It is also an agricultural pest, as it can reduce fertility in livestock animals that eat it. It can also spread into hayfields and affect the yield and quality of harvest from those crops.

Wild Parsnip is a relative of Giant Hogweed, and also has sap that *can cause severe burns*. If you suspect that you have found Wild Parsnip, take a photo for identification and take GPS coordinates. *Do not attempt to remove it yourself.*

Identification

- Reaches a height of up to 1.5 m.
- Single, smooth green stem 2 to 5 cm thick.
- Compound leaves grow in pairs along the stalk. Leaflets are sharply toothed.
- Has yellow flowers that grow in umbrella-shaped clusters at top of stalk. Flower heads are 10 to 20 cm across.
- Seeds are flat, round and a dull brown in colour.



European Frog-bit

(*Hydrocharis morsus-ranae*)

Native to Europe, parts of Africa, and Asia, European Frog-bit was introduced into North America in 1932 as a possible plant for commercial use. Often found in slow moving waters such as inlets, ponds, road ditches, and slow moving rivers. European Frog-bit is a threat to our aquatic ecosystems, forming dense floating mats of vegetation and grows very quickly. When the plant dies in the fall it requires high amounts of dissolved oxygen to break down these large masses which may lead to reduced oxygen levels impacting other aquatic species. Can be spread by water movement, boats, and wildlife.

Identification

- Single white flowers which have three rounded petals with a yellow center.
- Flowers grow up to 2 cm wide.
- Leaves are round and roughly the size of a loonie and form a rosette up to 6 cm wide.
- Bottom of the leaves are purple-red with a spongy coating along the middle vein of the leaf, this allows it to float on water.



European Frog-bit leaves:
Photo: Ontario Federation of Anglers
and Hunters.



White European Frog-bit flowers.
Photo: Wasyl Bakowsky.



European Frog-bit covering a pond.
Photo: Michigan Sea Grant.

Invasive Phragmites Reed

(Phragmites australis australis)

Invasive Phragmites Reed (commonly referred to as Phragmites) is a perennial grass native to Eurasia. It is a wetland plant that prefers to grow in standing water but has extensive root systems that allow it to survive in dry areas as well as put up new shoots. In this way, Phragmites threatens native vegetation by monopolizing water and nutrient resources, producing a toxin from the roots that kills nearby plants and by sheer crowding.

An issue that complicated the identification of Phragmites is that there are native reeds in the same family that can look similar to the invasive variant.

Invasive Phragmites

- Grows in extremely dense stands, unlike native Phragmites.
- Very tall plant, can reach up to 5 m in height.
- Stems are tan to beige in colour with blue-green leaves. Seed heads are very large and dense.



Invasive Phragmites seed heads. Photo: Peter O'Connor.

Native Phragmites

- Grows in stands that are not as dense, frequently intermixed with other plant species.
- Not generally as tall as invasive phragmites.
- Has reddish to brown stems, lighter coloured yellow-green leaves and smaller, sparser seed heads.



Invasive Phragmites stand in autumn. Photo: James H. Miller, USDA Forest Service.



Invasive Phragmites stands are dense and tall.



Native Phragmites stands are not dense and are shorter



Invasive Phragmites stems are tar n spring and summer.



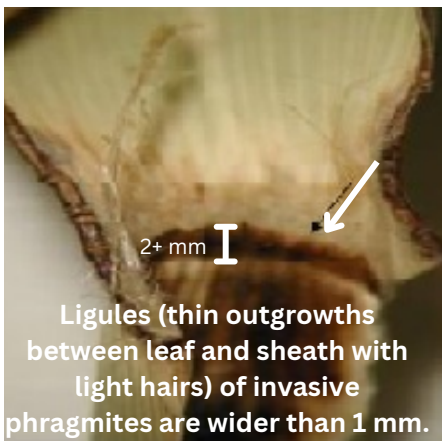
Native Phragmites stems are purplish in spring and summer.



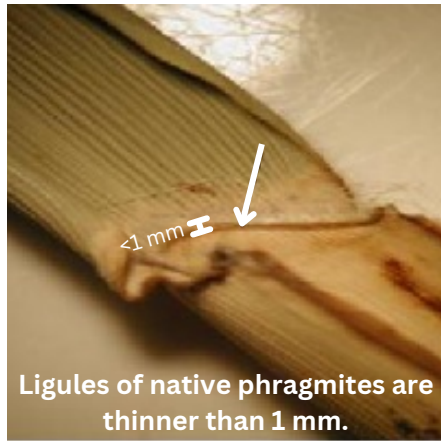
Invasive Phragmites leaves are bluish green.



Native Phragmites leaves are bright green.



Ligules (thin outgrowths between leaf and sheath with light hairs) of invasive phragmites are wider than 1 mm.



Ligules of native phragmites are thinner than 1 mm.

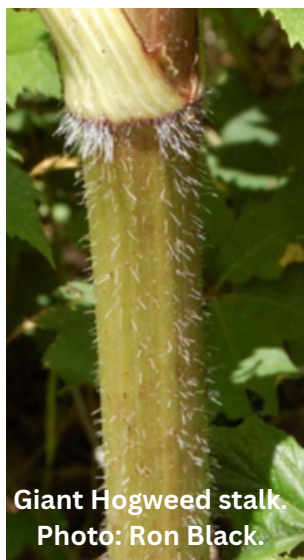
Giant Hogweed

(*Heracleum mantegazzianum*)

Giant Hogweed is a perennial native to southwest Asia that originally came to North America as an ornamental plant. Though its distribution in Ontario is currently very patchy, it has the potential to spread along disturbed areas such as roadsides and ditches, and could colonize woodland clearings if left unchecked. The sap *can cause severe burns* if it gets on your skin and is then exposed to sunlight. The plant *can also cause severe respiratory symptoms*. If you suspect you have found a giant hogweed specimen, take a GPS coordinate where you found it and photograph it for identification purposes. *Do not attempt to remove it yourself.*

Identification

- First-year plant grows up to 1 m tall and produces a rosette of three-lobed leaves with toothed edges.
- From second year onward, plant develops a thick stalk with red to flecks and coarse hairs covering it; sometimes solid red at base.
- Flower head resembles that of a Queen Anne's Lace flower but is much larger. Often reaching 1 m wide.



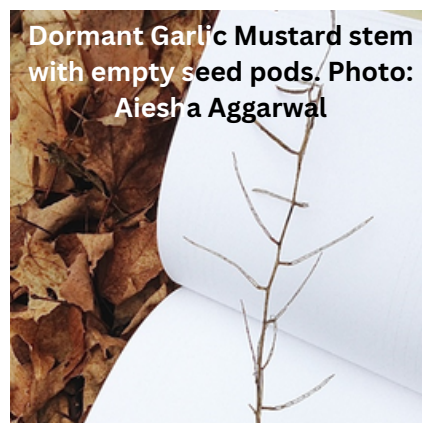
Garlic Mustard

(*Alliaria petiolata*)

Garlic Mustard is native to Europe and was brought to North America in the 1800's for use as an edible herb. It has since escaped and become an aggressive invader of forest understories as it is shade tolerant. The seeds of the Garlic Mustard plant are highly resilient and can remain in the soil for 5 years and still be able to sprout when conditions are right, making it very difficult to get rid of once established. Garlic Mustard is not a good food source for native wildlife, and it inhibits the growth of native plants that are able to better fill this ecological function.

Identification

- Leaves, especially the young leaves, produce a strong garlic odour when crushed.
- First-year foliage is a rosette of dark green and kidney-shaped leaves that can be up to 10 cm across.
- Second-year plants grow a stem that can be between up to 1.2 m tall with triangular leaves that are sharply toothed. These leaves are arranged in an alternate pattern along the stem.
- Second-year plants flower in May. Flowers are small and have four white petals.
- Garlic Mustard produces narrow seed pods between 2.5 and 6 cm in length, these open in mid-summer. Seeds are very small and black in colour.



General Characteristics of Invasive Plants

Many plants are non-native or introduced in any given area. Only a subset of those may become invasive. To be classified as invasive, plants must:

- be fast growing and highly adaptable
- cause economic or property damage
- harm native plants
- reproduce quickly, often with an abundance of seeds and easy dispersal

Other common characteristics of invasive plants include:

- often able to reproduce multiple ways (root cuttings, rhizomes, dropped leaves, seeds, self-fertilizing)
- often tolerant of disturbance
- often have vigorous root systems

Additional Resources

For more information on Invasive plants, please refer to the following resources:

Ontario Invasive Plant Council

The Invasive Species Centre

Ontario's Invasive Species Awareness Program

Nature Conservancy of Canada's Invasive Species Gallery

Canadian Council on Invasive Species

Ontario Nature

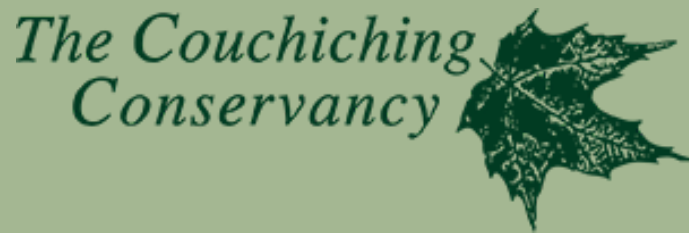
The Couchiching Conservancy's Free EdApp Invasive Species Course

(www.web.eddap.com)

Contact Information

To report invasive species observations on a nature reserve, please contact Brandon Guoth, The Couchiching Conservancy's Reserve Steward at brandon@couchconservancy.ca, call (705)-326-1620.

For other inquiries, donations, or to become a volunteer, call (705)-326-1620. Your support helps us take care of nature.



Protecting nature for future generations

Founded in 1993, The Couchiching Conservancy is a non-profit, non-government land trust powered by people like YOU. Together, we are dedicated to protecting nature.

How you can help

Become a member
Volunteer your time
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