

# Invasive Species

**Prepared by:**

Energy and Environment  
Halifax Regional Municipality

Revision Date: October 2020



# Table of Contents

<b>Invasive Species</b> .....	<b>5</b>
<b>Invasive Species on the Municipal Radar</b> .....	<b>5</b>
<b>General Resources on Invasive Species</b> .....	<b>5</b>
<b>Section 1: Plant Identification</b> .....	<b>6</b>
Coltsfoot - <i>Tussilago farfara</i> .....	6
Physical Description .....	6
General Habitat & Additional Characteristics .....	6
Relevance to the region.....	6
Additional Resources.....	6
Common Burdock - <i>Arctium minus</i> .....	7
Physical Description .....	7
General Habitat & Additional Characteristics .....	7
Relevance to the region.....	8
Giant Hogweed - <i>Heracleum mantegazzianum</i> .....	9
Physical Description .....	9
General Habitat & Additional Characteristics .....	9
Relevance to the region.....	10
Additional Resources.....	10
Goutweed - <i>Aegopodium podagraria</i> .....	11
Physical Description .....	11
General Habitat & Additional Characteristics .....	11
Relevance to the region.....	11
Additional Resources.....	11
Himalayan Balsam (aka Policeman's Helmet) - <i>Impatiens glandulifera</i> .....	12
Physical Description .....	12
General Habitat & Additional Characteristics .....	12
Relevance to the region.....	13
Additional Resources.....	13

Japanese Knotweed - <i>Polygonum cuspidatum</i> .....	14
Physical Description .....	14
General Habitat & Additional Characteristics .....	14
Relevance to the region.....	14
Additional Resources.....	14
Multiflora Rose (aka Rambler Rose) - <i>Rosa Multiflora</i> .....	15
Physical Description .....	15
General Habitat & Additional Characteristics .....	15
Relevance to the region.....	16
Additional Resources.....	16
Purple Loosestrife - <i>Lythrum salicaria</i> .....	17
Physical Description .....	17
General Habitat & Additional Characteristics .....	17
Relevance to the region.....	18
Additional Resources .....	18
Scotch Broom - <i>Cytisus scoparius</i> .....	19
Physical Description .....	19
General Habitat & Additional Characteristics .....	19
Relevance to the region.....	19
Additional Resources .....	19
Wild Parsnip - <i>Pastinaca sativa</i> .....	20
Physical Description .....	20
General Habitat & Additional Characteristics .....	20
Relevance to the Region .....	21
Additional Resources.....	21
Yellow Floating Heart - <i>Nymphoides peltata</i> .....	22
Physical Description .....	22
General Habitat & Additional Characteristics .....	22
Relevance to the region.....	22

Additional Resources.....	23
<b>Section II: Insect Identification .....</b>	<b>24</b>
Beech Leaf Mining Weevil (aka Flea Weevil) - <i>Orchetes Fagi</i> .....	24
Physical Description .....	24
General Habitat & Additional Characteristics .....	24
Relevance to the region.....	25
Additional Resources.....	25
Blacklegged Tick (aka Deer Tick) - <i>Ixodes scapularius</i> .....	26
Physical Description .....	26
General Habitat & Additional Characteristics .....	26
Relevance to the region.....	27
Additional Resources.....	27
What should I do if I find a Blacklegged Tick?.....	27
General Instructions: .....	27
Brown Spruce Longhorn Beetle (BSLB) - <i>Tetroplum fuscum</i> .....	28
Physical Description .....	28
General Habitat & Additional Characteristics .....	28
Relevance to the region.....	29
Additional Resources.....	29
Chinch Bugs - <i>Blissus</i> sp. *Non-Invasive .....	30
Physical Description .....	30
General Habitat & Additional Characteristics .....	30
Relevance to the region.....	30
Additional Resources.....	30
European Fire Ant - <i>Myrmica rubra</i> .....	31
Physical Description .....	31
General Habitat & Additional Characteristics .....	31
Relevance to the region.....	31

# Invasive Species

## Invasive Species on the Municipal Radar



An invasive species is a non -native species (including seeds, eggs, spores, or other propagules) whose introduction causes or likely to cause economic harm, environmental harm, or harm to human health. The term "invasive"; is used for the most aggressive species. These species grow and reproduce rapidly, causing major disturbance to the areas in which they are present.

Many invasive species are often introduced to an area by accident, although many species have been deliberately introduced. The Norway Maple was first purposely imported to North America in the mid -1700s and is now considered a risk.

## General Resources on Invasive Species

- [Exotic and Invasive Plants of the Atlantic Maritime Ecozone. Hill, M. Nick and Blaney, C. Sean.](#)
- [Nova Scotia Wild Flora Society, Invasive Species.](#)
- [Environment Canada, How Do Alien Species Get in Canada?](#)
- [NS Lands and Forestry, Invasive Alien Species in Nova Scotia.](#)

# Section 1: Plant Identification

## Coltsfoot - *Tussilago farfara*



### Physical Description

- Blooms can occur in late February to early March, and range in size from 10-20 cm.
- Yellow flowers are “dandelion like” and bloom in advance of leaf emergence.
- Deep green/heart shaped leaves with velvety undersides.
- Woody stems can range in colour from red to purplish.

### General Habitat & Additional Characteristics

- Coltsfoot is reported to prefer damp areas and is often found along roadsides, agricultural areas, native forests, disturbed rural and urban areas, pastures, sand dunes, cliff slopes, and stream banks.
- Historically, seeds have been dispersed within soil spread during road maintenance practise.
- Wind dispersal of seeds has been documented to reach distances of 12.8 km.
- Form large groups of flowers with deep rooting systems.
- Large leaves can shade the ground and prevent the germination of other plants.

### Relevance to the region

- Native to Europe, Asia, and North Africa, Coltsfoot is thought to have been introduced to North America by early settlers who used it for medical purposes.
- Its ability to bloom early assists this plant to acquire available space from other native plants.

### Additional Resources

- [Coltsfoot, \*Tussilago farfara\*, The Main Invasion.](#)

## Common Burdock- *Arctium minus*



### Physical Description

- Common Burdock is an invasive biennial/short-lived perennial plant that can grow up to 2 metres in height.
- Showy pink/magenta flowers resembling those of the thistle, and large rhubarb-like leaves.

### General Habitat & Additional Characteristics

- Common Burdock is typically found along roadsides, open woods, disturbed areas, along paths and along animal trails.
- It can quickly infiltrate suitable habitats and out-compete native Acadian forest plants.
- It's large "rhubarb-like" leaves cause shade conditions and can inhibit the growth of other groundcovers.
- A typical burdock plant will produce around 15,000 seeds that are easily distributed by birds and other animals.

## Relevance to the region

- Native to Europe and Asia, the plant has been known in Canada for almost 250 years.
- Its ability to quickly infiltrate areas, can negatively impact the biodiversity of the Acadian forest.
- As the plant reproduces by seed, cutting down the plants before they bloom is considered a suitable means to control Common Burdock.
- Although the roots of some burdock plants may live up to 5 years, cutting the plant on an annual basis is likely to reduce the number of seeds released by the plant.
- Deep rooting systems inhibit the effectiveness of removal via digging.

## Giant Hogweed - *Heracleum mantegazzianum*



### Physical Description

- Giant Hogweed is large plant that can grow up to 5 m in height.
- Large umbrella-shaped clusters of small flowers with diameters measuring up to 1.5 m.
- Flowers produce large, flat, oval-shaped seeds.
- Leaves are compound and have many leaflets on a common stem (can measure greater than 2.5 m in length).
- Leaves also have stiff, stubby hairs on the underside and are dark green with jagged, deeply grooved edges.
- The stem is herbaceous (green, leaf-like; non-woody), ranging from 5 -10 cm in diameter, hollow, cover with coarse hairs, and may have purple spots.
- Blooms occur in June and July.
- Resembles some of Nova Scotia's native species (such as, Angelica, Queen Anne's Lace, and Cow Parsnip) but is generally much larger in size.

### General Habitat & Additional Characteristics

- Giant Hogweed can thrive in a variety of habitats but is most commonly found adjacent to streams, small water bodies, roads, as well as in vacant lots.
- Reproduction occurs via seeds and perennial buds.
- It takes several years for a plant to develop a flowering stem from germination.
- Seed viability can last over 7 years.

- Direct contact with Giant Hogweed can cause both severe skin and eye problems – including possible blindness.

#### Relevance to the region

- Native to Asia, it is thought Giant Hogweed was introduced to North America in the early 1900s for ornamental purposes.
- It was first identified in Nova Scotia in the 1980s and has been since spotted in several areas around the region.
- This plant presents problematic issues for the region in terms of the potential human health impacts (i.e. direct contact with Giant Hogweed can cause both severe skin and eye problems – including possible blindness).
- Can readily occupy and crowd out native vegetation.
- In riparian areas it can form a dense canopy, out-competing native species and subsequently cause streambank erosion

#### Additional Resources

- [Ontario's Invading Species Awareness Program, Giant Hogweed.](#)
- [Giant Hogweed \(Heracleum mantegazzianum\), Invasive Alien Species \(IAS\) Information Sheet.](#)

## Goutweed - *Aegopodium podagraria*



### Physical Description

- Goutweed is a perennial herb that can reach heights of 40 to 90 cm (average).
- White/cream flowers.
- Extensive root system including main and lateral roots.

### General Habitat & Additional Characteristics

- Goutweed thrives in temperate climates and is generally reported to prefer moist soil conditions.

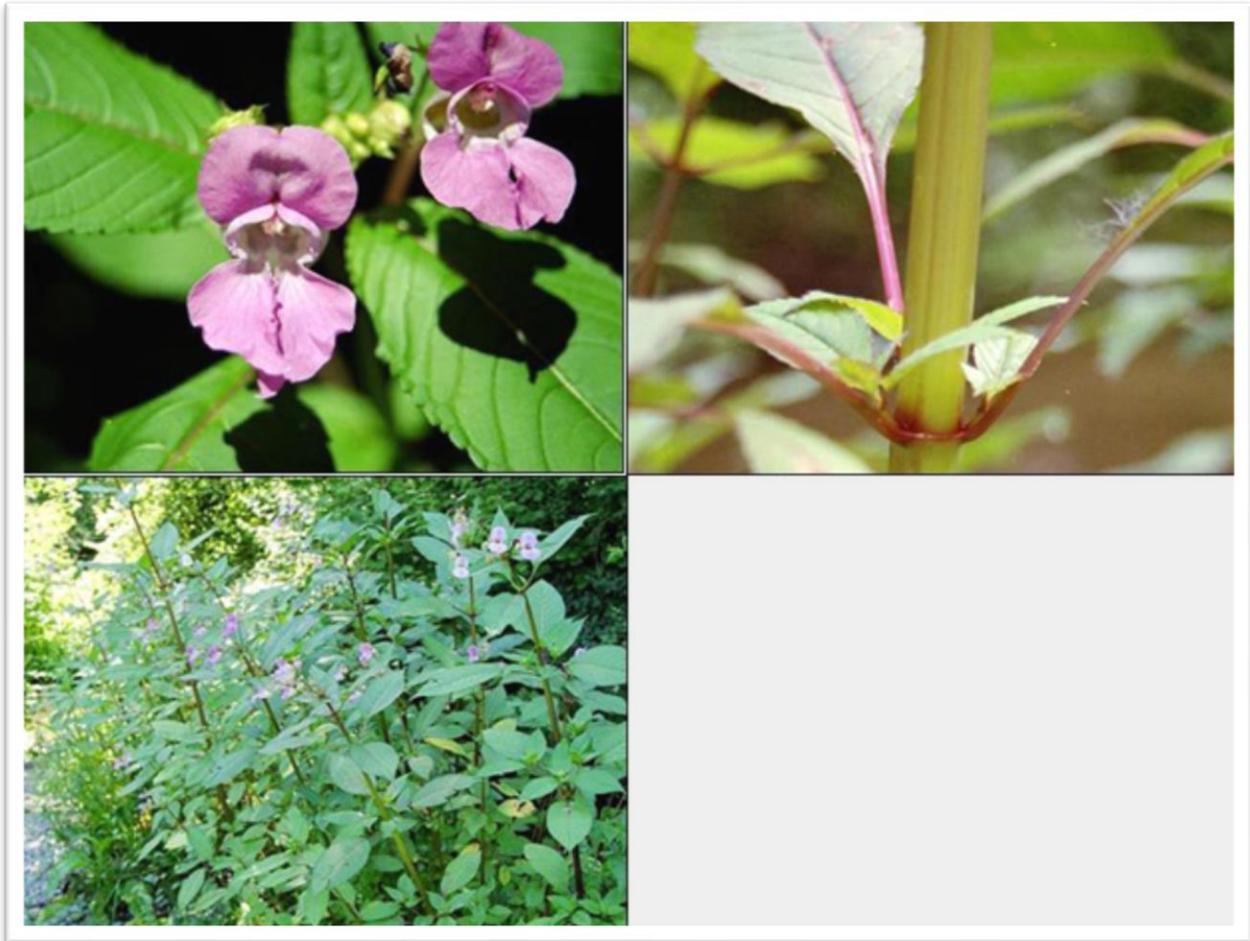
### Relevance to the region

- Native to Eurasia, Goutweed occurs throughout Canada; including Nova Scotia.
- According to the Canadian Wildlife Federation, the status has become naturalized and is of low concern.

### Additional Resources

- [USDA Forest Service, \*Aegopodium podagraria\*.](#)

## Himalayan Balsam (aka Policeman's Helmet) - *Impatiens glandulifera*



### Physical Description

- Himalayan Balsam is an invasive annual plant that can grow up to 3 metres in height.
- Flowers are showy with pink/purplish “orchid-like” flowers.
- Identified by its whorled leaves (usually in sets of threes) and recognizable hollow and jointed stalk (leaves and branches arise from the stem joints).
- Small white to dark brown/black seeds ((measure from 4 to 7 mm diameter; 4 to 16 per pod).
- Spotted Jewelweed (*Impatiens capensis*) also known as "Touch-me-not" plant grows under similar conditions as the Himalaya n balsam. Unlike the Himalayan balsam plant the "Touch -me -not" has orange flowers; is native to parts of the Acadian forest; and is not considered to be aggressive or invasive.

### General Habitat & Additional Characteristics

- Himalayan Balsam is partially shade tolerant and is generally located in lowland, riparian areas (including: stream banks, ditches, and wetlands) and can out compete Acadian forest plants.
- Seed pods can release up to 2500 seeds (per plant); which can also travel over 10 kilometres prior to germinating in the spring.
- The buoyant seeds are often dispersed by watercourses or human related interactions (i.e. private gardens) and can remain viable for over 1 year.

- Cut stems can also re-grow from the roots.
- This plant provides an ample supply of nectar to pollinators; further supplementing its invasive character.

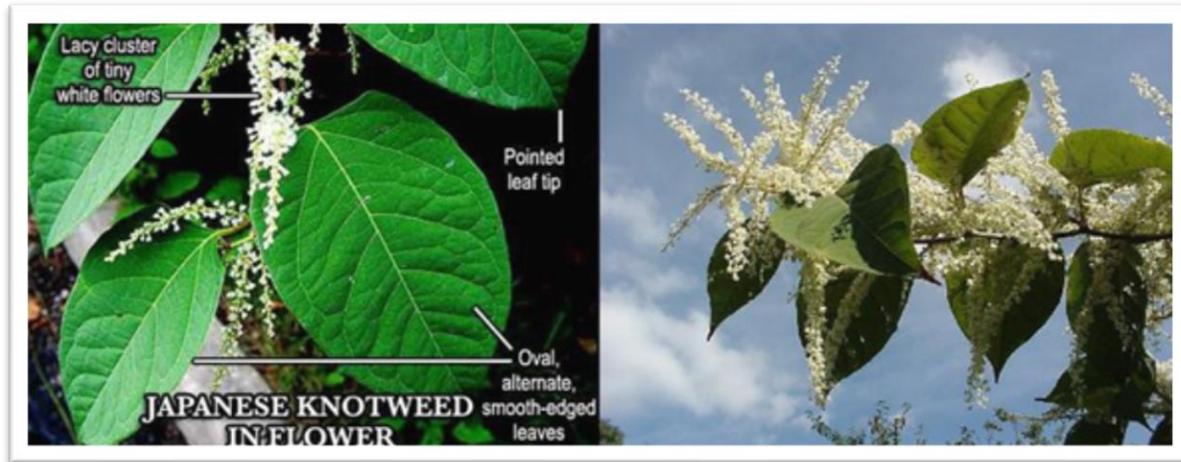
#### Relevance to the region

- Native to the Himalayas, Himalayan Balsam was first recorded in Canada in 1901 (Ottawa, Ontario) most likely as an ornamental plant.
- Today the plant is found in Nova Scotia and seven other provinces.
- Its ability to quickly infiltration areas, can negatively impact the biodiversity of the Acadian forest.
- Vigilant monitoring and closely contained removal (preferably prior to blooming) is considered a suitable control method (poor root structures allow for this plant to be generally easily removed by hand). Ultimately, control of this plant will not be successful if the sources of the seeds are not simultaneously suppressed.

#### Additional Resources

- [Ontario's Invading Species Awareness Program, Himalayan Balsam.](#)

## Japanese Knotweed - *Polygonum cuspidatum*



### Physical Description

- Japanese Knotweed is a “shrub-like” herbaceous perennial plant that can reach heights of greater or equal to 3 m.
- Produces very small greenish-white flowers in linear clusters.
- Large oval leaves that are smooth, alternate, and pointed at the tips.
- Hollow stems with pronounced nodes that resemble bamboo.
- Very extensive, creeping roots.
- Blooms occur in August and September.

### General Habitat & Additional Characteristics

- Japanese Knotweed can thrive in adverse habitat types but is commonly found along stream banks and riparian areas.
- Dispersion is primarily vegetative and possibly by seed.

### Relevance to the region

- Native to East Asia, it is thought Japanese Knotweed was introduced to Nova Scotia in the 1800s for ornamental, erosion control, and screening purposes.
- This plant presents problematic issues for the region in terms of:
- Its ability to crowd-out Acadian forest saplings, shrubs, and groundcovers on the forest edge.
- It is very difficult to control and remove once it has become established.
- The dense shade produced by this plant can also inhibit the growth of other plants.

### Additional Resources

- [Ontario's Invading Species Awareness Program, Japanese Knotweed.](#)

## Multiflora Rose (aka Rambler Rose) - *Rosa Multiflora*



### Physical Description

- Multiflora Rose is a perennial shrub that forms a 1m to 3 m thicket.
- Small white flowers; including 5 petals occur in small clusters.
- Leaves are compound, alternate and finely toothed.
- Produce small red rose hip fruit. These remain on the plant through winter months.
- Blooms occur in June and July.
- This plant can be distinguished from native roses by its fringed bracts at the base of each leaf stalk as well as by its arching stems.

### General Habitat & Additional Characteristics

- Multiflora Rose can tolerate a wide range of habitat types.
- Has the ability to climb trees and attain great heights.
- Birds act as vectors for seed dispersal.
- This plant can also spread via the rooting of arching stems.

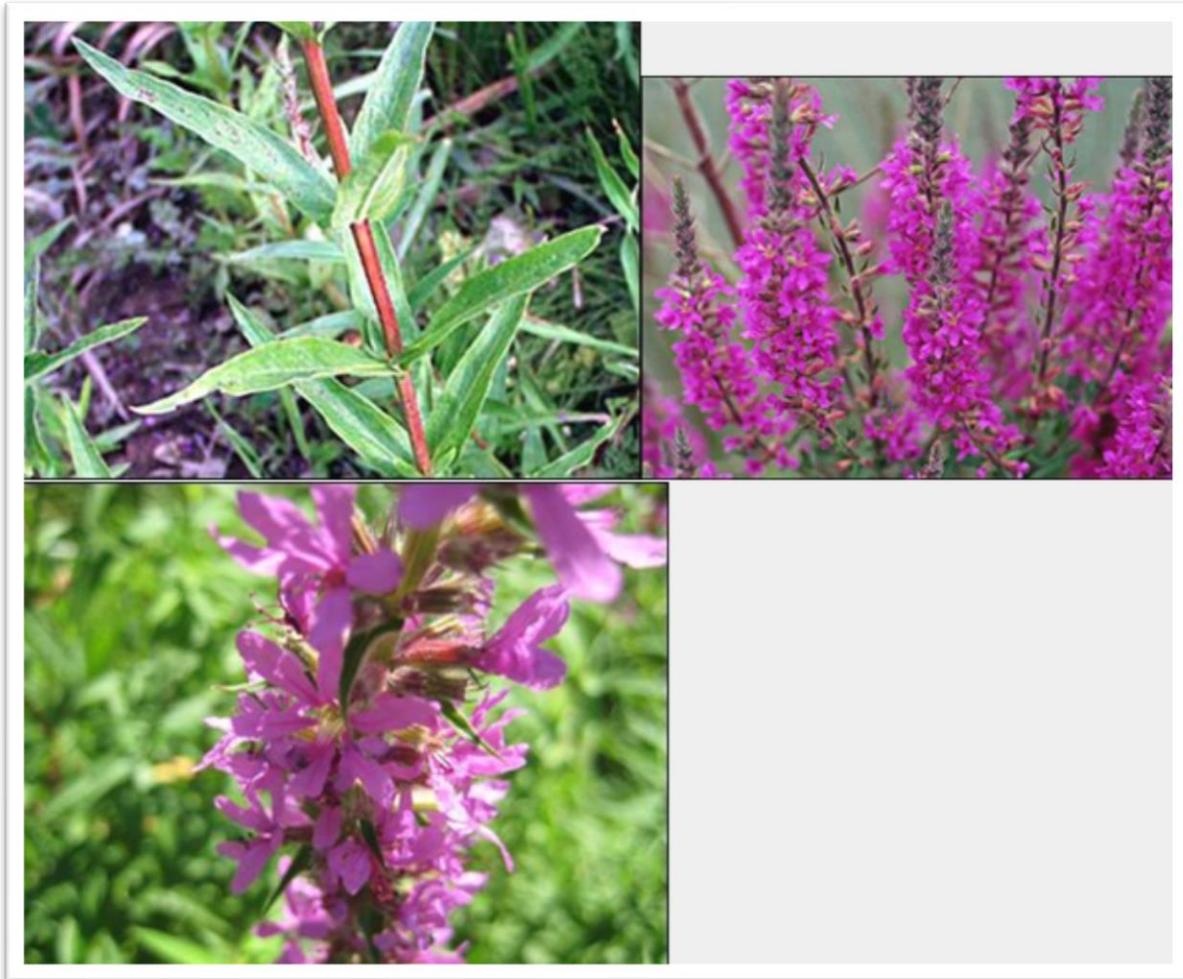
### Relevance to the region

- Native to Japan, Korea, and East China, Multiflora Rose is thought to have been introduced to Nova Scotia in approximately 1886 for ornamental, erosion control, and livestock fencing purposes.
- The prolific nature of Multiflora seeds has the potential for long-range transport, making control challenging.

### Additional Resources

- [Plant Conservation Alliance's Alien Plant Working Group, Fact Sheet: Multiflora Rose.](#)

## Purple Loosestrife- *Lythrum salicaria*



### Physical Description

- Purple Loosestrife is a perennial herb that general forms upright, stout, branched stems; reaching heights from 50 to 150 cm.
- Small magenta spiked regular flowers; including 5 to 7 petals.
- Leaves are simple, opposite (or on whorls of 3), smooth, stalk-less and downy.
- Produce small fruit capsules (approx. 6 mm in length) that contain numerous dark seeds.
- Blooms from July through to September (and later).

### General Habitat & Additional Characteristics

- Purple Loosestrife has numerous wetland habitat types.
- This plant is spread by both wind-dispersed seeds as well as vegetative means.

### Relevance to the region

- Native to Eurasia, Purple Loosestrife is thought to have been introduced to Nova Scotia in the early 1880s for ornamental and medicinal purposes.
- This plant presents problematic issues for the region in terms of:
  - o Its ability to outcompete native wetland plants;
- Its prolific seed production and associated large seed bank; and
- Eradication is very difficult.

### Additional Resources

- [Plant Conservation Alliance, Fact Sheet: Purple Loosestrife.](#)

## Scotch Broom - *Cytisus scoparius*



### Physical Description

- Scotch Broom is a perennial shrub that can reach heights of 2 to 3 m.
- Has a stiff “busy” form that usually occurs in clumps.
- Flowers are bright yellow and “pea-like”.
- Leaves are generally small and lower leaves generally include 3 leaflets.
- Blooms occur in June and July.

### General Habitat & Additional Characteristics

- Generally, thrive in disturbed areas and open woodlands.
- Reproduction occurs via seeds and root suckers.

### Relevance to the region

- Native to Europe and Africa, it is thought Scotch Broom was introduced to Nova Scotia in the early 1800s for ornamental, dye and medicinal purposes.
- It was first identified in Nova Scotia in the 1980s and has been since spotted in several areas around HRM.
- This plant presents problematic issues for the region in terms of it’s potential to invade open forest understories and prevent regeneration of native plants.

### Additional Resources

- [Invasive Species Council of BC, Scotch Broom.](#)

## Wild Parsnip - *Pastinaca sativa*



### Physical Description

- Wild Parsnip is a large plant that can grow up to 2m in height.
- Large umbrella -shaped clusters of small yellow flowers with diameters measuring 10 - 20 cm across.
- Flowers produce flat, winged, and round -shaped seeds.
- Leaves are compound and have many leaflets on a common stem. The leaflet at the tip of the leaf is diamond -shaped.
- The stem is herbaceous (green, leaf-like; non -woody), hollow except at nodes, and generally smooth.
- Blooms occur in June and July; some sources indicate they may persist through September.
- Resembles some of Nova Scotia's native species (such as, Angelica, Queen Anne's Lace, and Cow Parsnip) but is generally much larger in size.

### General Habitat & Additional Characteristics

- Wild Parsnip tolerates dry, moist, and wet soils and thrives in several habitats, including fields, meadows, and riparian areas, shorelines, forest edges, roadsides and railway embankments.
- The single green stem is two to five centimetres thick and smooth with few hairs.
- It usually takes two years for a plant to develop a flowering stem from germination.

- Reproduction occurs via seeds only.
- Produces large volumes of seeds that are easily dispersed by wind and water, and on mowing or other equipment.
- Direct contact with Wild Parsnip can cause both severe skin and eye problems including blindness, from photodermatitis.
- The roots are edible

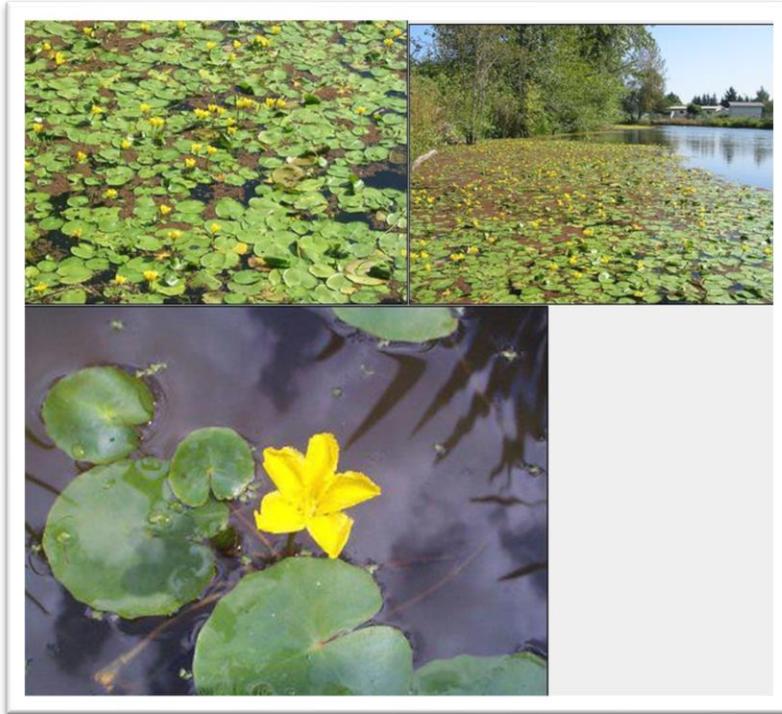
#### Relevance to the Region

- Native to Eurasia, it is thought that Wild Parsnip was introduced to North America for its edible root.
- It was first identified in Nova Scotia in the 1940s but was limited to beaches until recently. In the last several years its range has extended and is now also found in more residential areas
- This plant presents problematic issues for the region in terms of:
- The potential human health impacts (i.e., direct contact with the sap of Wild Parsnip can cause both severe skin and eye problems, including possible blindness).
- Can form dense stands and spread quickly in disturbed areas, outcompeting native plants and reducing biological diversity.

#### Additional Resources

- [USDA Natural Resources Conservation Service, \*Pastinaca sativa\* L. wild parsnip.](#)
- [Ontario's Invading Species Awareness Program, Wild Parsnip](#)
- [Government of Canada, The Biology of Canadian Weeds. 144. \*Pastinaca sativa\* L. Technical report.](#)
- [Ontario Invasive Plant Council, Wild Parsnip Best Management Practices in Ontario.](#)

## Yellow Floating Heart - *Nymphoides peltata*



### Physical Description

- Yellow flowers (measure from 3 to 4 cm in diameter); including: 5 petals that are arranged like a star.
- Heart-shaped leaves that float on the water's surface (measure from 3 to 10 cm in diameter); have wavy/slightly scalloped edges; and usually have a pink or purple hue on the underside.
- Stems run below the water's surface.
- Yellow Floating Heart has a similar appearance to the Yellow Pond Lily; however, the Yellow Floating Heart is distinguishable by its 5 fringed petals.

### General Habitat & Additional Characteristics

- Yellow Floating Heart can grow in a variety of substrates (including: sand, mud, and gravel), in littoral areas (ranging from damp mud along the water's edge to water depths of 4 m).
- Exhibits a preference for slow-moving waters (such as, lakes, rivers, ponds, reservoirs, and marshes).
- The annual cycle for this plant occurs between June and August.
- Yellow Floating Heart is an active competitor that can rapidly overtake lakes via the transport of its leaves, roots or flowers.

### Relevance to the region

- Native to Asia, this plant can be purchased in local retail garden centres and on-line.

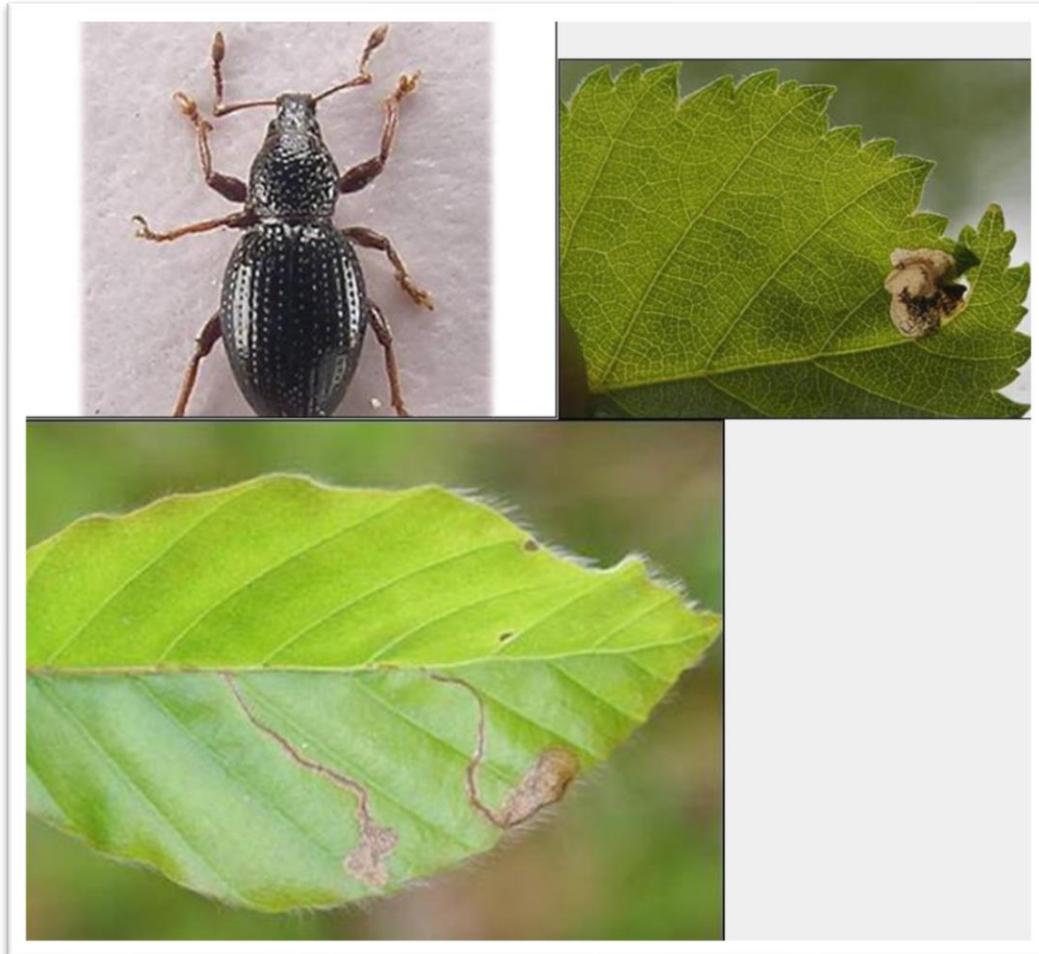
- Plants can migrate from private gardens to natural water systems by: flooding events, transport by waterfowl or other animals' vectors, as well as intentional human placement.
- Yellow floating heart, has been observed in Little Albro Lake, Dartmouth.

#### Additional Resources

- [Ontario's Invading Species Awareness Program – Yellow Floating Heart](#)

## Section II: Insect Identification

### Beech Leaf Mining Weevil (aka Flea Weevil) - *Orchetes Fagi*



#### Physical Description

- Adults are very small (range from 2.2 to 2.8 mm in length).
- Black coloration.

#### General Habitat & Additional Characteristics

- Adults overwinter under bark or in leaf litter.
- Feed on beech leaves in May; often causing “shot hole” damage.
- Eggs are laid singly along the mid-rib on the underside of leaves and the larvae feed inside the beech leaf making a thin mine that usually extends to an expanded “blotch” mine near the leaf margin.
- Can jump several times their body length (thus they are also called “flea” weevils).

## Relevance to the region

- In 2011, municipal staff and elected officials began to receive numerous reports of beech trees that appeared to be diseased or stressed.
- Early reports related to Beech stands in the Bedford, Dartmouth, and Fairmount areas of the region.
- Municipal staff responded to the reports by engaging the Canadian Forestry Services (CFS), a Natural Resources Canada Agency responsible for forest issues.
- Subsequent expert identification confirmed the presence of the Beech Leaf Mining Weevil (*Orchestes fagi*) a newly introduced exotic pest from Europe.
- The Canadian Food Inspection Agency (CFIA), the federal agency which serves as Canada's national plant health organization agency, was immediately informed.
- Since that time CFS and CFIA have been collaborating to determine how widespread this weevil is distributed in Nova Scotia as well as the risk it poses to American Beech trees in North America.

## Additional Resources

- [Sweeney et al \(2012\), First Records of \*Orchestes Fagi\* \(L.\) \(Coleoptera: Curculionidae: Curculioninae\) in North America, with a Checklist of the North American Rhamphini.](#)

## Blacklegged Tick (aka Deer Tick) - *Ixodes scapularis*



### Physical Description

- Adult deer ticks are smaller than dog or wood ticks (approximately 3 mm in length) and have no white markings on the large part of their bodies.
- Dark brown to black colouration.

### General Habitat & Additional Characteristics

- Migrating birds are a common transportation vectors for Blacklegged Ticks.
- Blacklegged ticks generally live in wooded areas that provide the humidity they need to survive. Such areas are also often inhabited by their primary food sources (i.e. white footed mice, deer and other mammals).

- They search for a host from the tips of low-lying vegetation and shrubs, not from trees.
- These ticks crawl (i.e. they do not jump or fly).
- Attachment occurs near ground level when their food sources brush against vegetation. They then crawl upwards on the host to find an appropriate location to feed.
- Blacklegged ticks live 2 to 3 years and have 3 blood meals.
- The life cycle begins when the female lays eggs. As the eggs mature, they develop into larvae, then nymphs, and finally adults.

#### Relevance to the region

- Nova Scotia has many types of ticks. However, the Blacklegged tick carries Lyme disease which can be contracted by humans.
- The Blacklegged tick has been positively identified in Admiral's Cove Park in Bedford.
- Due to the how they are dispersed, these ticks are likely in or will soon be found in other areas of the region.

#### Additional Resources

- [Nova Scotia Public Health Services, Lyme Disease– Insect and Animal Related Diseases.](#)
- [Minnesota Department of Health, Blacklegged Ticks \(Deer Tick, Bear Tick\).](#)
- [The Public Health Agency of Canada, Lyme Disease and Other Tick-Borne Diseases.](#)
- [Government of Canada, Lyme Disease](#)
- [Government of Nova Scotia, Tick Safety](#)

#### What should I do if I find a Blacklegged Tick?

- Drop off any ticks you find on people or pets to Nova Scotia Museum in Halifax (P: 902.424.6455; 1747 Summer Street, Halifax Nova Scotia, B3H 3A6) unless you know they are dog or wood ticks. This will help the Province track the spread of the Blacklegged ticks in the area.

#### General Instructions:

- Place the tick in a clean, sturdy pill bottle or film canister;
- Add a damp tissue to keep the tick fresh and tap the lid shut firmly; and
- Include your name, phone number and details about when and where the tick was found.

## Brown Spruce Longhorn Beetle (BSLB) - *Tetropium fuscum*



### Physical Description

- As the BSLB has a similar appearance to the native bark beetle (*Tetropium cinnamoptermum*) it is difficult to visually identify without the aid of a microscope.
- Adults range in size from 8 to 18 mm in length.
- Head and neck coloration ranges from dark brown to black.
- Antenna have a red-brown coloration and are approx. one half of the body length.

### General Habitat & Additional Characteristics

- In Nova Scotia, BSLB impact living spruce tree stands.
- The larvae cause tree mortality by forming extensive networks of wide irregular tunnels

- within their host; disrupting the nutrient transport system.
- BSLB infestations usually result in spruce tree death within 1 to 5 years.

#### Relevance to the region

- The BSLB, native to northern and central Europe and western Siberia, is thought to have entered Nova Scotia through imported wood packing material at the port adjacent to Point Pleasant Park.
- In 1998, Natural Resources Canada's Canadian Forest Service (NRCan-CFS) researchers discovered many dead and dying trees in Point Pleasant Park in Halifax, Nova Scotia.
- In 1999, NRCan-CFS positively identified the BSLB and determined that it was established in Halifax Regional Municipality (HRM).
- As spruce trees are found across Canada, the BSLB has the potential to spread throughout the range of red, white, black and other species of spruce in North America.
- Failure to contain the spread of BSLB could result in significant economic losses (i.e. trade restrictions and reduced markets for spruce work products) and long-term impacts on the health of spruce forests.

#### Additional Resources

- [Canadian Food Inspection Agency, \*Tetropium fuscum\* – Brown Spruce Longhorn Beetle.](#)
- [Province of Nova Scotia, Brown Spruce Longhorn Beetle.](#)

## Chinch Bugs - *Blissus* sp. \*Non-Invasive



### Physical Description

- Chinch bugs are black with a white spot on their back between their wing pads.
- Adult chinch bugs have white wings folded over their backs and are approximately 4mm in length.
- Immature (nymph) chinch bugs are bright red with distinctive white bands across the back. As the nymph matures its colouration will transition from orange to brown, and finally black (these nymphs do not have wings).

### General Habitat & Additional Characteristics

- Chinch bugs thrive in poorly tended lawns with compacted soils, accumulations of thatch, and a lack of moisture or an excess of nitrogen.
- Chinch bugs feed by sucking the sap from the crown and stems of turf grasses.
- Chinch bugs prefer bent grasses but will attack many other lawn grasses (e.g. such as, bluegrass or varieties or red fescue).
- The damage caused by chinch bugs appears quickly in hot weather.
- Chinch bugs give off an offensive odour when crushed.

### Relevance to the region

- Lawn damage shows up as irregular yellow patches, which begin in June and spread over the summer. The grass may turn brown and die if feeding continues unchecked, and a severe infestation of chinch bugs can destroy an entire lawn.

### Additional Resources

- [Government of Canada, Chinch Bugs.](#)

## European Fire Ant - *Myrmica rubra*



### Physical Description

- Worker ants are very small (range from 4 to 5 mm in length) and the queen is slightly larger.
- Reddish-brown colouration.
- Waist has 2 segments; including 2 backward pointing spines on the middle body section (visible with a magnifying glass).

### General Habitat & Additional Characteristics

- Nests generally occur in moist environments, including: decaying logs, soil, potted plants, under rocks and debris, etc.
- Nest can spread by “colony budding” (i.e. a group, including the queen, moves from the original colony and establishes a new nest nearby) or by human transport of nests from infested areas (soil, decaying logs, potted plants, etc.).
- Actively defend territory and are likely to sting humans and pets within their foraging area(s).

### Relevance to the region

- The Canadian Food Inspection Agency (CFIA) has identified the European Fire Ant, as present in Nova Scotia, New Brunswick, Quebec, and Ontario. It is also known to be present in the North Eastern United States.

- The CFIA has stated that the European Fire Ant is not a regulated pest in Canada; however, the sale of plants which contain pests, such as the European Fire Ant, are regulated and enforced by their agency.
-