

# grow me instead



**NEW BRUNSWICK & NOVA SCOTIA EDITION**

**Use native plants to  
create a vibrant garden,  
support biodiversity, and  
prevent the spread of  
invasive species.**



## ACKNOWLEDGEMENTS

The New Brunswick Invasive Species Council (NSISC) and the Nova Scotia Invasive Species Council (NSISC) would like to thank the dedicated partners that helped to bring this guide to life, the numerous experts and horticultural industry representatives who took the time to provide their insight, as well as the Canadian Council on Invasive Species, the Invasive Species Council of British Columbia and the Ontario Invasive Plant Council for sharing their existing guides. Finally, we'd like to especially thank Samuel Jean and Melanie Priesnitz of the Harriet Irving Botanical Gardens for their significant contribution to the guide.



The geographic region represented in this guidebook is that of the Wabanaki\* Forest region and is comprised of the traditional ancestral homelands of the Mi'kmaq, Wolastoqey, and Peskotomuhkati Nations past and present. We acknowledge and honour with gratitude the land and waterways, and the Wabanaki\* Peoples' stewardship of these throughout the generations. We also acknowledge that this land continues to be unceded.

\*We also acknowledge the different spellings of Wabanaki (e.g., Wapna'ki) as shared generously by local elders.

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# INTRODUCTION TO GUIDE

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Gardens and yards are extensions of our local ecosystems and they represent incredible opportunities to help restore an area's biodiversity. What we plant in them has an impact on the surrounding natural areas; in fact, many of today's most damaging invasive plants were first brought to North America for ornamental purposes. This guide is a reference tool for New Brunswick and Nova Scotia gardeners to learn about invasive horticultural plants and their recommended native alternatives. By following the practices and growing the alternatives listed in this guide, you can achieve a vibrant and diverse garden that teams with life while helping to prevent the spread of invasive plants.

## WHAT'S IN THE GUIDE

For each invasive plant highlighted in this guide, two native alternatives are recommended along with details about their characteristics and preferred growing conditions, uses in a garden, and additional interesting information.

## HOW WERE THE SPECIES IN THE GUIDE CHOSEN?

The invasive plants included in this guide are species that are known to already be invasive in the region or are horticultural plants that are expected to become invasive with climate change. It should be noted that this guide is not an exhaustive list, but rather an introduction to how to select non-invasive plants, and we encourage gardeners to always do their research on a new plant to make sure it is suitable for their area.

The recommended native alternatives were chosen based on several factors: whether they are native to the Wabanaki forest, have similar desired characteristics and growing conditions to their invasive counterpart, are hosts for native wildlife species and Species At Risk, and/or can be found for sale purchased from nurseries in New Brunswick, Nova Scotia, or online.

# BACKGROUND

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## WHAT ARE INVASIVE SPECIES?

Invasive species are plants, animals and other living organisms (e.g., microbes) that have been introduced into areas beyond their native range that negatively impact the environment, economy, and/or society. Humans are largely responsible for the movement of invasive species to new areas through “pathways of spread”. Invasive plants have made their way to New Brunswick and Nova Scotia through the horticultural trade, movement of infested soil and landscaping materials, as agricultural crops, and through natural range expansion from where they were introduced in surrounding regions. Once established in gardens, these invasives can ‘escape’ into surrounding natural areas where they out-compete native plants and reduce wildlife habitat and food sources.

## WHAT ARE NATIVE SPECIES AND WHY ARE THEY IMPORTANT?

Native species are species that evolved in a particular area or region over thousands of years and have become an important part of the local ecosystem. In North America, native plants are often considered to be the ones that were present in a region prior to European colonization. Our native plant species have co-evolved with our native wildlife and thus maintain specialized relationships. For example, many native pollinating insects need native plants in order to complete their life cycle. The relationship between the monarch butterfly and native milkweed species is well known, but there are many others, and likely many that we are not even aware of yet. By planting native plants, you not only reduce the risk of introducing new invasive ones, but you also help maintain and restore food webs, invite wildlife back into your garden, and help preserve biodiversity.



**NOTE:** Invasive species don’t just come from other countries or continents; some invasive species in New Brunswick and Nova Scotia are actually native to other parts of Canada or North America. So when sourcing native plants, make sure they are native to your region.

## THE WABANAKI FOREST REGION

For the purposes of this guide, we are considering native plants to be those from the Wabanaki forest region. The Wabanaki forest spans the traditional unceded territories of the Mi'kmaq, Wolastoqiyik, Pestomuhkati, Penawapskewi, and Abenaki, which are the five principal nations that form The Wabanaki Confederacy (Waponaki-translated as as "People of the First Light" or "Dawnland"). This region covers the three Maritime provinces, Gaspé Peninsula of Québec, and down into the northern parts of New England. While it is referred to as the Wabanaki forest, it encompasses all of the ecosystems in the region. Around 1200 vascular plant species are native to its ecosystems.





## GLOSSARY



**Host plant:** Plants that are used by insects to complete their life cycle. For example, milkweed plants are host plants for the monarch butterfly. Although the adult can consume the nectar of various plants (including non-native ones), its caterpillar can only eat the foliage of milkweed plants.



**Keystone species:** Species that play a significant role in their ecosystem. In the native plant gardening realm, native oaks, willows, cherries, asters and goldenrods are referred to as keystone species. They all attract a wide array of insects and are host plants for hundreds of them.



**Larval stage:** Many of our pollinators begin their lives as larvae and need native plants to complete their life cycle.



**Pollinators:** Pollinators are animals that are responsible for the movement of pollen from one flower to the next. In our region, bees, butterflies, moths, beetles, flies and hummingbirds are the most common pollinators.

**Rain garden:** A planted area of a garden (often a depression) that collects rainwater and promotes its infiltration into the ground. Species that are naturally found in wetlands and along streams and rivers are good candidates for this type of garden. Creating a rain garden reduces storm water pressure on municipal infrastructure and helps replenish the water table.

**Xeriscape:** Drought tolerant gardens that minimize or even eliminate the need for irrigation. Plants that are adapted to dry soils perform best here. Creating a xeriscape reduces the pressure on freshwater resources.





## BEST PRACTICES

You can help to prevent the establishment of invasive plants in NB and NS by adopting the following practices:

- ✓ Select plants native to the region that can grow well in your garden conditions.
- ✓ Inspect purchased or transplanted plants, soil, and compost for 'hitchhikers' like insects, worms, and egg masses.
- ✓ Purchase locally grown or sourced plants and seed mixes; ensure they are properly labeled so that you know exactly what you are growing.
- ✓ Be wary of using wildflower seed mixes as they often contain invasive plant species
- ✓ Inspect your garden for any unknown or unusual plants, insects, worms, or signs of disease. See the information in the back of this guide to report possible invasive species.
- ✓ Dispose of invasive plant materials and seeds responsibly (i.e. bag and landfill); do not dump yard waste or garden/potted plants in natural areas; check whether plants are invasive before putting in the compost.
- ✓ If you find an invasive plant in your garden, remove and dispose of it using site-and species-appropriate methods (e.g., hand pulling, digging, tarping) to prevent possible spread.
- ✓ Encourage local botanical gardens, nurseries, and gardening clubs to promote and sell native plants and to include scientific names on labels.

**Heads up!** You may come across cultivars of native species when shopping for native plants. On plant labels, the name of a cultivar will usually appear in single quotes and start with a capital letter (e.g., *Penstemon digitalis* 'Husker Red'). Cultivars are cultivated varieties of plants that have been selectively bred for traits that humans find attractive (larger flowers, brighter flowers or leaf colour, more petals, shorter stems, etc.). Cultivars may be less suitable for pollinators for this reason. While true native species are best overall, using native plant cultivars in your garden is still better than using non-native or invasive plants.



A close-up photograph of a plant with vibrant pink flowers and green, needle-like leaves. The flowers are small and clustered together, with some buds still visible. The background is softly blurred, showing more of the same plant.

## SPECIES

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The following species profiles showcase dozens of native plant species, but with over 1200 species native to the Wabanaki Forest Region, many more options exist for gardeners and landowners.

# TREES

## UNWANTED



**NORWAY MAPLE**  
*Acer platanoides*



**SYCAMORE MAPLE**  
*Acer pseudoplatanus*



**AMUR MAPLE**  
*Acer ginnala*

**NORWAY** and **SYCAMORE MAPLES** are large deciduous trees that grow up to 18–21 m tall with large crowns. **AMUR MAPLE** is a much smaller deciduous tree only reaching a height of 6 m. These maple trees threaten our native forests by creating dense canopies that exclude native understorey vegetation. Both Norway and Amur maples also release toxic chemicals from their roots that are detrimental to the growth of other plant species. These species even provoke soil erosion due to the lack of ground vegetation.

## NATIVE ALTERNATIVES



### SUGAR MAPLE

*Acer saccharum*

**Garden Use:** Shade tree, specimen tree, fall interest.

**Growing Conditions:** Prefers rich, well-drained soils in full sun to full shade. Young specimens are shade tolerant.

**Size & Shape:** A large tree; reaches over 20 m tall.

**Features:** Spectacular yellow-orange colouration in the fall.

**Additional Info:** This species is used to make maple syrup and can live up to 300 years.



### SILVER MAPLE

*Acer saccharinum*

**Garden Use:** Shade tree, wet areas.

**Growing Conditions:** Quite adaptable, but prefers moist soils in full sun to part shade. Tolerates occasional flooding.

**Size & Shape:** A tall tree; reaches over 20 m tall. Rapid growth.

**Features:** The leaves are green with a silvery underside.

**Additional Info:** Branches of this species easily break during storms. It is best to plant it away from houses and roads for this reason.

# TREES

## UNWANTED



**TREE-OF-HEAVEN**  
*Ailanthus altissima*

**TREE-OF-HEAVEN** is a highly adaptable tree species that has escaped cultivation and is invading many regions throughout North America. It is common in urban environments but can also be found invading edge habitats where it expands inwards via roads, trails, or by wind-borne seeds. Dense colonies are formed by root suckering which displaces native species. It is resistant to pollution, herbivory, and ice, and is capable of producing over 300,000 seeds annually. This species also releases chemicals from its roots to inhibit the growth of other plants.

## NATIVE ALTERNATIVES



### STAGHORN SUMAC

*Rhus typhina*

**Garden Use:** Informal hedges and screens, fall interest.

**Growing Conditions:** Easy to grow in various types of well-drained soil exposed to sun. Drought tolerant.

**Size & Shape:** This small tree/shrub has a twisty, uneven trunk, and reaches up to 5 m tall. Often multi-stemmed.

**Features:** Exotic looking small tree/shrub with a spectacular fall colouration. The upper branches have a velvety texture and the seed heads are very decorative throughout most of the year.

**Additional Info:** A refreshing, lemonade drink can be made with the fruit. Appreciated by birds like the northern mockingbird. Great host species for several butterfly and moth species.



### AMERICAN MOUNTAIN-ASH

*Sorbus americana*

**Garden Use:** Planted as a focal point or as a screen.

**Growing Conditions:** Moist soil in full sun to part shade. Prefers cool conditions.

**Size & Shape:** Small single or multi-stemmed tree that can reach up to 10 m tall.

**Features:** The clusters of flowers are followed by showy red berries. Interesting fall colouration.

**Additional Info:** Despite its name, this species is not related to true ashes and is a member of the rose family.

# TREES

## UNWANTED



**EUROPEAN ASH**  
*Fraxinus excelsior*

**EUROPEAN ASH** is a large deciduous tree native to Eurasia that displays vigorous growth. Planting European ash trees should be avoided. These trees are vectors of diseases and insect pests that pose a significant threat to native black ash trees which are federally and provincially listed as threatened (Nova Scotia).

## NATIVE ALTERNATIVES



### WHITE ASH

*Fraxinus americana*

**Garden Use:** Shade tree, planted as a focal point.

**Growing Conditions:** Prefers moist but well-drained soils in full sun to part shade.

**Size & Shape:** Large graceful tree; can grow to over 20 m tall.

**Features:** Large compound leaves that turn yellow/purple in the fall. Decorative fissured bark on mature specimens.



### YELLOW BIRCH

*Betula alleghaniensis*

**Garden Use:** Shade tree.

**Growing Conditions:** Performs best in rich, moist soils. Great shade tolerance, especially when young.

**Size & Shape:** Large tree that can grow to over 20 m tall.

**Features:** The beautiful, shiny, gold bark peels off the trunk in small ribbons and the foliage turns yellow in the fall.

**Additional Info:** The tree can be tapped to produce birch syrup. The crushed buds and twigs have a wintergreen aroma. Birds such as the [common redpoll](#) feed on the seeds which often germinate on logs and stumps.



# TREES

## UNWANTED



**SCOTS PINE**  
*Pinus sylvestris*

**SCOTS PINE** is a large, evergreen, coniferous tree that can grow up to 25 m tall, with an irregularly shaped crown. Scots pine grows in many soil conditions and different moisture levels, and requires sunlight. It can escape into open woodlands, wetlands, and barrens, which threatens native biodiversity by outcompeting species and modifying ecosystems.

## NATIVE ALTERNATIVES



### **EASTERN WHITE PINE**

*Pinus strobus*

**Garden Use:** Shade tree, specimen tree, evergreen, windbreak.

**Growing Conditions:** Grows in various well-drained soil types. Drought and somewhat shade tolerant.

**Size & Shape:** Large majestic tree that can reach up to 30 m tall.

**Features:** Long needles in bundles of 5 and large elongated cones.

**Additional Info:** Birds like the red crossbill eat the seeds that are found in the large cones.



### **RED PINE**

*Pinus resinosa*

**Garden Use:** Shade tree, specimen tree, evergreen, windbreak.

**Growing Conditions:** Grows in various well-drained soil types; requires full sun.

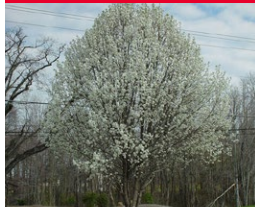
**Size & Shape:** Large tree. Reaches up to 25 m tall.

**Features:** Long dark green needles, reddish bark, and short, decorative cones.

**Additional Info:** Red pine is a host plant for the larval stage of many moths and butterfly species such as the porcelain gray moth and the eastern pine elfin.

# TREES

## UNWANTED



**BRADFORD PEAR**  
*Pyrus calleryana*

**BRADFORD PEAR** is a widely planted ornamental pear tree across North America that reaches 10–20 m in height. Highly adaptable to a variety of environmental conditions, it escapes cultivation and forms dense thorny thickets. It quickly reaches a fruit bearing age and produces an abundance of small fruit that are inedible to humans. The fruit is consumed by birds which can spread the seeds at great distances.

## NATIVE ALTERNATIVES



### SMOOTH SERVICEBERRY

*Amelanchier laevis*

**Garden Use:** Planted as a focal point, small shade tree, informal hedges, screens.

**Growing Conditions:** Performs best in well-drained soils in full sun to part shade.

**Size & Shape:** Reaches up to 12 m tall; may grow as a single or multi-stemmed small, graceful tree.

**Features:** Beautiful white flowers followed by sweet edible fruit that can be used to make jams and pies.

**Additional Info:** One of the first trees to bloom in spring and it has beautiful fall foliage; waxwings and other bird species love the berries.



### BLACK CHERRY

*Prunus serotina*

**Garden Use:** Shade tree.

**Growing Conditions:** Grows best in a rich, moist soil in full sun.

**Size & Shape:** Large tree that can grow over 20 m tall.

**Features:** The long racemes of white flowers are followed by dark cherries. Unique dark, scaly bark on mature trees.

**Additional Info:** Our largest and longest-lived native cherry tree; the berries can be used to make jam and it is a larval host plant for the [eastern tiger swallowtail](#), viceroy, and Columbia silkmoth, among several other butterfly and moth species.

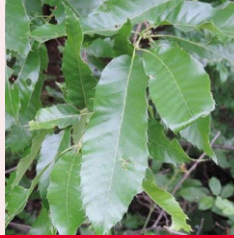


# TREES

## UNWANTED



**ENGLISH OAK**  
*Quercus robur*



**SAWTOOTH OAK**  
*Quercus acutissima*

**ENGLISH** and **SAWTOOTH OAK** are both tall deciduous trees reaching 24 m and 30 m in height, respectively. English oak produces green elongated acorns while sawtooth oak produces unique acorns with long reflexed scales on the cup. Both species easily escape cultivation and can invade surrounding habitats.

## NATIVE ALTERNATIVES



### NORTHERN RED OAK

*Quercus rubra*

**Garden Use:** Shade tree.

**Growing Conditions:** Grows in various well-drained soil types in full sun to partial shade; drought tolerant.

**Size & Shape:** Large, majestic tree that can grow over 20 m tall.

**Features:** Beautiful fall colouration and bountiful acorns.

**Additional Info:** Considered a keystone species; larval host plant for hundreds of moth and butterfly species, as well as many mushrooms including the edible [chicken of the woods](#).



### BUR OAK

*Quercus macrocarpa*

**Garden Use:** Shade tree.

**Growing Conditions:** Adaptable, grows in various well-drained soil types in full sun.

**Size & Shape:** Large, majestic tree that can grow over 20 m tall.

**Features:** Very large acorns.



# TREES

## UNWANTED



**BLACK LOCUST**  
*Robinia pseudoacacia*

**BLACK LOCUST** is a medium-sized deciduous tree (12–30 m) with spines on the younger branches and white pea-like flowers. Once established this species expands outwards by producing new trees via root and stump suckering. It creates dense colonies that shade out native plant species. This tree species is a nitrogen fixer and alters soils which promotes the growth of weedy invasive species. Its leaves, stems, bark, and seeds contain toxins that if ingested can be fatal to humans and some animals, especially horses.

## NATIVE ALTERNATIVES



### BASSWOOD

*Tilia americana*

**Garden Use:** Shade tree.

**Growing Conditions:** Grows best in rich, moist soils in full sun to part shade.

**Size & Shape:** Large tree that can grow over 20 m tall.

**Features:** The fragrant, pale yellow flowers attract pollinators in late spring.

**Additional Info:** Casts a dense shade. The fragrant flowers attract [pollinators](#) and can be used to make tea. Not to be confused with little-leaved linden (*Tilia cordata*), a non-native linden species that easily escapes cultivation.



### TREMBLING ASPEN

*Tilia americana*

**Garden Use:** Windbreak.

**Growing Conditions:** Prefers well-drained soils in full sun; very hardy.

**Size & Shape:** Reaches up to 20 m tall; rapid growth.

**Features:** Leaves tremble in the wind and turn bright yellow in fall.

**Additional Info:** The leaves tremble in the breeze, producing a pleasant sound; a larval host plant for the eastern tiger swallowtail and viceroy, among several other moth and butterfly species.

# TREES

## UNWANTED



**JAPANESE TREE LILAC**  
*Syringa reticulata*

**JAPANESE TREE LILAC** is a small deciduous tree that produces abundant white flowers. There are multiple records of this species escaping gardens, becoming naturalised, and spreading throughout surrounding habitats. This weedy tree species invades roadsides, forests edges, fields, and meadows.

## NATIVE ALTERNATIVES



### ALTERNATE-LEAVED DOGWOOD

*Cornus alternifolia*

**Garden Use:** Focal point, woodland gardens, informal hedges.

**Growing Conditions:** This understory shrub performs best in rich, moist soil under filtered light.

**Size & Shape:** Elegant shrub that reaches less than 10 m tall. Branches grow in horizontal tiers.

**Features:** The clusters of white flowers are followed by dark fruits; foliage turns bright red in fall.



### PIN CHERRY

*Prunus pensylvanica*

**Garden Use:** Shade tree.

**Growing Conditions:** Grows best in well-drained soil in full sun; adapted to disturbed sites.

**Size & Shape:** Reaches up to 10 m tall.

**Features:** The small white flowers are followed by red fruit.

**Additional Info:** This small tree grows rapidly and produces fruit that attracts many bird species. It is a larval host plant for the Columbia silkmoth and several other moth and butterfly species.

# TREES

## UNWANTED



**SMALL-LEAVED  
LINDEN**  
*Tilia cordata*

**SMALL-LEAVED LINDEN** is a large deciduous tree that was introduced to North America for urban landscaping. This species spreads by seeds and is known to escape cultivation, where it can be found growing in habitats near urban areas or dwellings. Unlike the North American linden tree, this species is highly susceptible to the linden borer (*Saperda vestita*). This beetle causes significant damage to small-leaved linden trees and can lead to tree mortality.

## NATIVE ALTERNATIVES



### RED MAPLE

*Acer rubrum*

**Garden Use:** Shade tree, fall interest.

**Growing Conditions:** Very adaptable. Thrives in soggy soils as well as in drier sites in full sun to part shade. Adapted to disturbed areas.

**Size & Shape:** A large tree that can reach over 20 m tall. Can be single or multi-stemmed.

**Features:** Spectacular foliage in fall; red maple keys with seeds are produced early in the season.

**Additional Info:** In early spring, the small red flowers provide food for pollinators. This tree is a larval host plant for the [rosy maple moth](#). Sugar maple and silver maple are other great native alternatives to small-leaved linden.



### EASTERN HOP-HORNBEAM

*Ostrya virginiana*

**Garden Use:** Shade tree.

**Growing Conditions:** Quite adaptable, this understory tree grows well in part shade and tolerates moderate drought.

**Size & Shape:** Reaches up to 15 m tall.

**Features:** The foliage turns gold in the fall.

**Additional Info:** The fruiting structure of this small tree looks similar to flowers of the common hops plant used in making beer. The ruffed grouse feeds on the buds and nuts.

# SHRUBS

## UNWANTED



**JAPANESE BARBERRY**  
*Berberis thunbergii*



**COMMON BARBERRY**  
*Berberis vulgaris*

Both **JAPANESE** and **COMMON BARBERRY** are woody shrubs with thorny branches. They have creeping roots and a variety of animals disperse their seeds. This allows them to easily escape cultivation and form dense thorny thickets that out-compete native plant species for resources. Dense thickets of Japanese barberry also create the optimal conditions for black-legged ticks, and the presence of this shrub has been linked with an increased risk of Lyme disease.

## NATIVE ALTERNATIVES



### **NORTHERN BUSH-HONEYSUCKLE**

*Diervilla lonicera*

**Garden Use:** Perfect to create low hedges.

**Growing Conditions:** Thrives in full sun and part shade in various well-drained soil types. Can be cultivated under trees in light shade.

**Size & Shape:** 30 to 100 cm tall. Wider than high; has suckers.

**Features:** Small yellow flowers in early summer. The foliage has copper tones when it emerges and turns pale yellow in fall.

**Additional Info:** Also a great native alternative to non-native shrubby honeysuckle species. Bumble bees visit the flowers.



### **SWEET-FERN**

*Comptonia peregrina*

**Garden Use:** Low hedges, dry areas.

**Growing Conditions:** Thrives in poor, dry soil in full sun. Nitrogen-fixing.

**Size & Shape:** Reaches up to 1 m tall; spreads via underground runners.

**Features:** The pleasantly scented foliage looks lacy and provides an interesting structure to plantings.

**Additional Info:** Despite its name, it is not a fern; a larval host plant for the gray hairstreak butterfly.

# SHRUBS

## UNWANTED



**SCOTCH BROOM**  
*Cytisus scoparius*

**SCOTCH BROOM** is a woody 1–3 m shrub with yellow pea-like flowers and green photosynthetic stems. It easily invades sunny, disturbed sites such as pastures, roadsides, and areas of recent logging. It can produce dense, impenetrable thickets that displace native plant species, reducing biodiversity. A mature plant can live up to 25 years and produce seeds that can survive up to 30 years in the soil. This species is toxic to livestock.

## NATIVE ALTERNATIVES



### NORTHERN BAYBERRY

*Morella pensylvanica*

**Garden Use:** Hedges and screens, back of plantings.

**Growing Conditions:** Performs well in various soil types. More compact growth in full sun. Drought and salt tolerant.

**Size & Shape:** 1 to 3 m tall. Can be shaped or cut to the ground if required.

**Features:** The semi-evergreen foliage is pleasantly scented. Female specimens produce waxy berries that persist on the branches into winter.

**Additional Info:** [Yellow-rumped warblers](#) feast on the berries in the fall and candles can be made from their waxy coating. This shrub is a larval host for the Columbia silkmoth.



### SHRUBBY CINQUEFOIL

*Dasiphora fruticosa*

**Garden Use:** Low hedges, foundation plantings.

**Growing Conditions:** Grows best in rich, moist soils, but is quite adaptable.

**Size & Shape:** Reaches up to 2 m tall.

**Features:** The yellow flowers are produced for several weeks in summer. Grey-green foliage.

**Additional Info:** Shubby cinquefoil has been a popular garden shrub for decades.

# SHRUBS

## UNWANTED



**AUTUMN OLIVE**  
*Elaeagnus umbellata*



**RUSSIAN OLIVE**  
*Elaeagnus angustifolia*



**SEA BUCKTHORN**  
*Hippophae ramnoides*

**AUTUMN OLIVE, RUSSIAN OLIVE, and SEA BUCKTHORN** are all large woody deciduous shrubs belonging to the oleaster family. These species produce abundant fruit that is dispersed by a variety of animals. For example, a single mature autumn olive plant produces on average 66,000 seeds annually, with some accounts up to 200,000! In addition to seed dispersal, sea buckthorn also spreads by rhizome growth and can regenerate from small fragments. All three species can out-compete native plants for resources, resulting in dense thorny thickets with reduced wildlife and plant diversity. These species are also capable of fixing nitrogen, which alters natural nitrogen levels. This promotes the growth of other weedy species and creates additional competitive pressures for native plants adapted to nutrient-poor habitats.

## NATIVE ALTERNATIVES



**CANADA SERVICEBERRY**  
*Amelanchier canadensis*

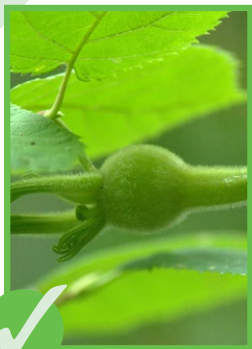
**Garden Use:** Focal point, informal hedges.

**Growing Conditions:** Quite adaptable, but grows best in moist soils in full sun to part shade.

**Size & Shape:** A small multi-stemmed tree that reaches up to 8 m tall and 6 m wide.

**Features:** The delicate white flowers of this early blooming shrub are followed by delicious, juicy fruit. The foliage turns orange in the fall.

**Additional Info:** The showy blooms are an early food source for native bees and the berries are a favorite food source for a variety of birds.



**BEAKED HAZELNUT**  
*Corylus cornuta*

**Garden Use:** Informal hedges and screens, woodland gardens.

**Growing Conditions:** Grows in various well-drained soil in full sun or shade.

**Size & Shape:** Reaches up to 2 m tall.

**Features:** Leaves turn yellow in the fall.

**Additional Info:** The nuts produced are edible (if you can get them before the squirrels do!).

# SHRUBS

## UNWANTED



**EUROPEAN EUONYMUS**  
*Euonymus europaeus*



**BURNING BUSH**  
*Euonymus alatus*

## EUROPEAN EUONYMUS

and **BURNING BUSH** are both spindletrees that have escaped cultivation and are invasive in North America. These large (4.5–6 m) deciduous shrubs outcompete herbaceous species for light and displace native shrubs. High rates of germination, bird-dispersed seeds, and tolerance to a variety of environmental conditions, allow these species to readily colonize a variety of habitats.

## NATIVE ALTERNATIVES



## HIGHBUSH BLUEBERRY

*Vaccinium corymbosum*

**Garden Use:** Fall interest, pond edges, informal hedges.

**Growing Conditions:** Prefers moist, acidic soils in full sun to part shade.

**Size & Shape:** Reaches 2 m or taller in our region.

**Features:** Glowing red fall colouration and delicious blue fruit.

**Additional Info:** The small nodding white flowers are very attractive to bees. Parent of the commercial highbush blueberry shrubs.



## BLACK CHOKEBERRY

*Aronia melanocarpa*

**Garden Use:** Fall interest, hedges and screens, rain gardens and pond edges.

**Growing Conditions:** Adaptable, but performs best in moist soil in full sun to part shade. Thrives in acidic conditions.

**Size & Shape:** Can reach up to 2 m tall.

**Features:** Spectacular fall colouration. The showy white flowers are followed by bitter, dark fruit.

**Additional Info:** Provides year-round interest in the garden. The bitter berries attract birds.

# SHRUBS/VINES/GROUNDCOVERS

## UNWANTED



**CLIMBING EUONYMUS**  
*Euonymus fortunei*

**CLIMBING EUONYMUS**, also known as wintercreeper, is a creeping evergreen shrub. It quickly creates dense mats of vegetation that suppress less-competitive plant species. It can also cling to vertical surfaces with aerial roots. This species escapes gardens through aggressive growth and seed production. It can be found growing along roadsides, parks, and forests. This shade-tolerant species has been known to invade undisturbed mature forests.

## NATIVE ALTERNATIVES



### COMMON BEARBERRY

*Arctostaphylos uva-ursi*

**Garden Use:** Evergreen groundcover, rock gardens, xeriscapes, slope stabilization.

**Growing Conditions:** Thrives in dry, poor soils in sunny areas. Requires good drainage. Can tolerate a minimal amount of salt spray.

**Size & Shape:** Spreading habit. Wider than high, 15 to 30 cm tall.

**Features:** The white flowers are followed by large red berries and the foliage is attractive year-round.

**Additional Info:** A larval host plant for the hoary elfin and the brown elfin butterflies.



### CREeping JUNIPER

*Juniperus horizontalis*

**Garden Use:** Evergreen, groundcover, rock gardens, xeriscapes

**Growing Conditions:** Grows in well-drained soils in full sun. Drought tolerant.

**Size & Shape:** Up to 45 cm tall. Wider than high; sprawling habit.

**Features:** Blue-green evergreen foliage and bluish berries.

**Additional Info:** The berries attract birds and the smooth foliage is aromatic; usually grows naturally near the coast.





## SHRUBS/TREES

### UNWANTED



**GLOSSY BUCKTHORN**  
*Frangula alnus*

**GLOSSY BUCKTHORN** is a single- or multi-stemmed shrub or small tree that can reach heights of 6 m. Glossy Buckthorn grows in wet to moist old fields, thickets, forest, shores, and open wetlands. It forms dense stands which can replace wetland and shoreline plant communities and take over forest understories – even eliminating tree seedlings. It is tolerant of acidic conditions and well adapted to invade a wide variety of natural habitats in the Maritimes; it may be the most invasive plant species in the region.

### NATIVE ALTERNATIVES



#### **WILD RAISIN**

*Viburnum cassinoides*

**Garden Use:** Informal hedges, screens, moist areas.

**Growing Conditions:** Grows best in moist soils in full sun to part shade.

**Size & Shape:** Reaches up to 3 m tall.

**Features:** The white flowers are followed by berries that mature to dark blue. The beautiful glossy foliage turns a vibrant fall colour.

**Additional Info:** [Yellow warblers](#) feed on the berries. Attractive throughout the growing season.



#### **AMERICAN WITCH-HAZEL**

*Hamamelis virginiana*

**Garden Use:** Focal point, woodland gardens, informal hedges and screens.

**Growing Conditions:** Grows best in rich, well-drained soil in part shade. Prefers sheltered locations.

**Size & Shape:** Small understory shrub that can reach up to 6 m tall. Often shorter since it grows slowly.

**Features:** One of the last shrubs to bloom in our region. Produces small yellow flowers in late fall.

# SHRUBS

## UNWANTED



**EUROPEAN BUCKTHORN**  
*Rhamnus cathartica*

**EUROPEAN BUCKTHORN** is a woody deciduous shrub reaching 6–7 m in height. It produces abundant black berries that are consumed by a variety of animals. The fruits have laxative properties providing rapid and wide dispersal. This species degrades habitat by altering nitrogen in the soil and reducing native plant diversity. It is shade and drought tolerant. This species can be found invading a variety of habitats including forest edges, fens, roadsides, pastures, and forest understory.

## NATIVE ALTERNATIVES



### RED ELDERBERRY

*Sambucus racemosa*

**Garden Use:** Woodland gardens, moist areas, pond edges.

**Growing Conditions:** Performs best in rich, moist soils in part shade.

**Size & Shape:** Arching form. Can reach up to 3 m tall.

**Features:** The clusters of white flowers are followed by showy red fruit in early summer.

**Additional Info:** Cutting it back severely encourages new growth. [Northern cardinals](#), orioles, and other bird species eat the berries. Fruit should not be consumed raw by humans.



### HIGHBUSH CRANBERRY

*Viburnum opulus var. americanum*

**Garden Use:** Informal hedges, screens, rain gardens.

**Growing Conditions:** Performs best in a rich, moist soil in full sun to part shade.

**Size & Shape:** Reaches up to 3 m tall.

**Features:** Beautiful display of white flowers in early summer. The large bright red berries persist on the branches for weeks and provide winter interest.

**Additional Info:** The berries attract birds and can be used to make jam; not related to true cranberries.

# SHRUBS

## UNWANTED



**EUROPEAN PRIVET**  
*Ligustrum vulgare*

**EUROPEAN PRIVET** is a semi-evergreen or deciduous shrub that can grow up to 4.5 m. A single shrub produces abundant blue-black berries that ripen in fall. These fruits are eaten by a variety of animals, spreading the seeds at great ranges. This species is highly competitive and will form dense thickets, out-competing native plants.

## NATIVE ALTERNATIVES



### INKBERRY

*Ilex glabra*

**Garden Use:** Low hedges and screens.

**Growing Conditions:** Grows in a variety of soil types exposed to sun; performs best in wet, acidic sites.

**Size & Shape:** Grows up to 2 m tall; can be kept shorter by shearing.

**Features:** Glossy evergreen foliage. On female plants, the small white flowers are followed by dark berries.



### ROUND-LEAVED DOGWOOD

*Cornus rugosa*

**Garden Use:** Informal hedges, screens, woodland gardens.

**Growing Conditions:** Adaptable. Performs well in various types of well-drained soils in part shade. Prefers richer soils.

**Size & Shape:** Grows up to 4 m tall; spreads slowly by root suckers.

**Features:** The white flowers are followed by powder blue berries.

**Additional Info:** The scientific name *rugosa* refers to the slight roughness of the bark and the high density of the wood.

## SHRUBS

### UNWANTED



#### INVASIVE HONEYSUCKLES

**Italian honeysuckle** (*Lonicera caprifolium*)  
**Morrow's honeysuckle** (*Lonicera morrowii*)  
**European honeysuckle** (*Lonicera periclymenum*)  
**Grape honeysuckle** (*Lonicera reticulata*)  
**Tartarian honeysuckle** (*Lonicera tatarica*)  
**Showy Fly honeysuckle** (*Lonicera x bella*) **Bush honeysuckle** (*Lonicera x xylostoides*) **Dwarf honeysuckle** (*Lonicera xylostium*)  
**Honeyberry/Haskap** (*Lonicera caerulea*)

#### INVASIVE HONEYSUCKLES

are woody deciduous shrubs that have escaped gardens and are invasive in a variety of habitats. They can be found invading forest interiors, flood plains, and edge habitats along woodlands, roadways, thickets, and meadows. Invasive honeysuckles quickly form dense patches, outcompeting native species for light and nutrients. They are prolific seed producers and some species release toxins from their roots that hinder the growth of other plant species.

### NATIVE ALTERNATIVES



#### GREY DOGWOOD

**Cornus racemosa**

**Garden Use:** Informal hedges, screens.

**Growing Conditions:** Full sun to part shade in various soil types. Good drought tolerance.

**Size & Shape:** Up to 3 m tall. Can be kept shorter by pruning. Over time, can form thickets by suckering.

**Features:** The white flower clusters are followed by white fruit on red stems.

**Additional Info:** Flowers attract a wide array of pollinators. Birds such as the northern cardinal and the northern flicker eat the fruit.



#### COMMON WINTERBERRY

**Ilex verticillata**

**Garden Use:** Informal hedges and screens, pond edges, rain gardens.

**Growing Conditions:** Prefers moist, acidic soils in full sun to part shade. Growth is more dense and compact in full sun.

**Size & Shape:** Reaches up to 3 m tall.

**Features:** Despite their small size, the white flowers attract many species of pollinators. The bright red berries persist on branches into the winter, providing a nice pop of colour.

**Additional Info:** Only female plants produce berries. Birds visit this shrub in winter.

# SHRUBS

## UNWANTED



**MULTIFLORA ROSE**  
*Rosa multiflora*

**MULTIFLORA ROSE** is a woody shrub that grows over 3 m tall and over 4 m wide. Multiflora rose invades a variety of environments. It can grow in open woodlots, forests, marshes, swamp edges, and in disturbed areas. It is often found in hedgerows, gardens, and along trails. It prefers locations with full sun, but can tolerate moderate shade. It is able to outcompete many native plants, and reduces biodiversity in habitats where it establishes.

## NATIVE ALTERNATIVES



### VIRGINIA ROSE

*Rosa virginiana*

**Garden Use:** Informal hedges, screens, roadsides.

**Growing Conditions:** Very adaptable. Drought and salt tolerant.

**Size & Shape:** Up to 2 m tall. Suckers.

**Features:** Fragrant pink flowers in early summer. The hips provide winter interest. Foliage often turns burgundy shades in fall. Thorny stems.

**Additional Info:** The fragrant flowers attract bumble bees and other [native bee species](#). Jams and teas can be made with the hips.



### WHITE MEADOWSWEEP

*Spiraea alba*

**Garden Use:** Low hedges, mixed plantings.

**Growing Conditions:** Performs well in any well-drained soil in full sun or part shade.

**Size & Shape:** Reaches up to 1.5 m tall.

**Features:** Clusters of white flowers in summer.

**Additional Info:** Very attractive to many pollinator species.

# SHRUBS

## UNWANTED



**RUGOSA ROSE**  
*Rosa rugosa*

**RUGOSA ROSE** is a dense shrub that grows up to 2.5 m tall. Its stem is robust, with abundant thorns of all sizes. Rugosa rose grows in sandy coastal areas and ditches. It spreads mainly by root suckers, but can also be moved long distances by mammals and birds, or by old hips floating in seawater. Once established, very few – if any – native species can compete with Rugosa rose. It threatens biodiversity and ecosystem function in many areas of the Maritimes but primarily along the coast.

## NATIVE ALTERNATIVES



### SWAMP ROSE

*Rosa palustris*

**Garden Use:** Informal hedges, screens, pond edges.

**Growing Conditions:** Grows best in moist soils in full sun. Tolerates occasional flooding.

**Size & Shape:** Up to 2 m tall. Slowly spreads vegetatively.

**Features:** Fragrant pink flowers in early summer that are followed by decorative red hips. Bright, multi-coloured fall colouration.

**Additional Info:** Bumble bees and other native bees visit the flowers.



### STEEPLEBUSH

*Spiraea tomentosa*

**Garden Use:** Low hedges, pond edges, rain gardens.

**Growing Conditions:** Grows best in a rich, moist soil in full sun, but is quite adaptable.

**Size & Shape:** Up to 1.5 m tall.

**Features:** Beautiful magenta spires in summer. The underside of the leaves are white to copper coloured.

**Additional Info:** Very attractive to various pollinator species. Larval host plant for the [Columbia silkmoth](#).



# SHRUBS

## UNWANTED



**HIMALAYAN BLACKBERRY**  
*Rubus bifrons*

**HIMALAYAN BLACKBERRY**, also known as Armenian blackberry, grows up to 5 m tall and produces canes up to 12 m long that root wherever they touch the ground. This species easily invades disturbed sites, pastures, roadsides, streambanks, and forest edges. It crowds out low-growing vegetation and can create thickets so dense it limits the movement of large animals. These thickets can produce 7,000 – 13,000 seeds per square metre. Himalayan blackberry also spreads by roots and stem fragments, as well as by birds and animals that eat the berries and disperse them.

## NATIVE ALTERNATIVES



### ALLEGHENY BLACKBERRY

*Rubus allegheniensis*

**Garden Use:** Informal hedges, screens, meadows.

**Growing Conditions:** Grows best in a well-drained soil in full sun.

**Size & Shape:** The thorny, arching canes reach up to 2 m tall.

**Features:** Large (for a member of the *Rubus* genus) winter flowers followed by juicy edible black fruit. Interesting fall colouration.

**Additional Info:** Our most common blackberry species. Attracts bumble bees, other native bees, and birds.



### BLACK RASPBERRY

*Rubus occidentalis*

**Garden Use:** Informal hedges and screens.

**Growing Conditions:** Grows best in a well-drained soil in full sun.

**Size & Shape:** Canes reach up to 2 m tall.

**Features:** Delicious raspberry-like purple-black berries are produced in summer and early fall.

**Additional Info:** Birds such as sparrows and robins eat the fruit. Some cultivated raspberry varieties have been developed from this species.

# SHRUBS

## UNWANTED



**ORANGE-EYE BUTTERFLY-BUSH**  
*Buddleja davidii*

**ORANGE-EYE BUTTERFLY BUSH** is a semi-evergreen shrub that grows up to 5 m tall. This attractive, fast growing plant can escape gardens and rapidly spread into disturbed, open areas and along coastal forest edges, roadsides, and especially on sunny stream edges and riverbanks where it replaces native plants. Butterfly bush produces lots of seeds and a single flower bunch can produce over 40,000 seeds. Seeds are spread by wind and water and can still grow after being in the soil for many years.

## NATIVE ALTERNATIVES



### **EASTERN BUTTONBUSH**

*Cephalanthus occidentalis*

**Garden Use:** Focal point, rain gardens, pond edges.

**Growing Conditions:** Found in wetlands and along lakeshores in the wild; performs best in rich, moist soils in full sun.

**Size & Shape:** Shrub that reaches around 2 to 3 m tall in our region. It can be cut back to the ground yearly if desired.

**Features:** Produces unique looking spheres of small white flowers in late summer. Attractive to many pollinator species. Beautiful glossy foliage.

**Additional Info:** Slow to emerge in spring; give it time. This shrub is in the same botanical family as coffee plants.



### **BUTTERFLY MILKWEED**

*Asclepias tuberosa*

**Garden Use:** Sunny perennial borders, meadows.

**Growing Conditions:** Performs best in a well-drained soil exposed to full sun. Drought tolerant, the taproot can rot when exposed to winter moisture for too long. Does not appreciate being transplanted.

**Size & Shape:** Reaches up to 90 cm tall.

**Features:** Produces clusters of vibrant orange flowers. Seed pods are decorative.

**Additional Info:** Larval host plant for the endangered monarch butterfly.





## SHRUBS

### UNWANTED



**JAPANESE KNOTWEED**  
*Reynoutria japonica*

**JAPANESE KNOTWEED** is a 1–3 m tall woody-stemmed herbaceous plant, with annual stems extending from the root system. It can grow up to 8 cm per day. Japanese knotweed grows primarily in urban habitats, but may also be found in riparian areas. It thrives in full sunlight, preferring open exposure, but can also survive in deep shade. Look for Japanese knotweed along roadsides, ditches, fence lines, and around old homesteads. This invasive species grows in thick clumps that block out sunlight, effectively shading out native species and reducing biodiversity.

### NATIVE ALTERNATIVES



#### **COMMON ELDERBERRY**

*Sambucus canadensis*

**Garden Use:** Informal hedges, screens, pond edges, rain gardens.

**Growing Conditions:** Quite adaptable, but at its best in a rich, moist soil in full sun.

**Size & Shape:** Vase shaped shrub. Reaches up to 2.5 m tall.

**Features:** Produces edible large, flat clusters of small white flowers in early summer and dark fruit in late summer.

**Additional Info:** A bird's favourite! The fruit can be used to make jams, syrups, and wine.



#### **RED-OSIER DOGWOOD**

*Cornus sericea*

**Garden Use:** Informal hedges, screens, rain gardens, winter interest.

**Growing Conditions:** Performs well in various soil types and exposures, but does not appreciate drought.

**Size & Shape:** Reaches up to 2 m tall. Spreads via runners.

**Features:** Striking red colouration on its branches; colour is most intense on younger branches and those exposed to lots of sunlight.

**Additional Info:** Can be cut back to the ground to re-energize plant and to maintain red colour in stems.

# VINES

## UNWANTED



**PALE SWALLOWWORT**  
*Vincetoxicum rossicum*



**BLACK SWALLOWWORT**  
*Vincetoxicum nigrum*

**DOG-STRANLING VINE** (a.k.a. Swallowworts) are herbaceous vines that grow up to 2 m high, twining onto plants and trees, or trailing along the ground. They are perennial, growing back from their well-established root system each year. Swallowworts prefer open sunny areas, but can survive in light shade. They form extensive, dense patches that outcompete native plants for space, water and nutrients. They are difficult to destroy, as they produce large amounts of seeds which are spread by the wind, and can also grow from root fragments. Swallowworts are especially detrimental to endangered monarch butterfly populations, as they mistakenly lay their eggs on these plants instead of native Milkweed. Unable to complete their life cycle, the larvae do not survive.

## NATIVE ALTERNATIVES



### AMERICAN GROUNDNUT

*Apios americana*

**Garden Use:** Can cover fences, trellises and snags.

**Growing Conditions:** At its best in a rich, moist soil in full sun.

**Size & Shape:** Sprawling/climbing non-woody vine that can reach up to 3 m tall in a single growing season.

**Features:** This member of the pea family (*Fabaceae*) produces fragrant, pink flowers in late summer.

**Additional Info:** The tubers and seed pods are edible; larval host plant for the silver-spotted skipper butterfly.



### SWAMP MILKWEED

*Asclepias incarnata*

**Garden Use:** Pond edges, rain gardens, perennial borders.

**Growing Conditions:** While it thrives in wet areas, it can also be cultivated in a regular garden soil that does not dry out too much. Blooms more profusely in full sun.

**Size & Shape:** This tall plant reaches up to 1.5 m.

**Features:** In summer, produces vanilla-scented pink flowers that attract many species of pollinators. Attractive seed pods.

**Additional Info:** Larval host plant for the endangered monarch butterfly.

# VINES

## UNWANTED



**ORIENTAL BITTERSWEET**  
*Celastrus orbiculatus*

**ORIENTAL BITTERSWEET** is a deciduous woody vine or trailing shrub that can reach heights of over 18 m. Oriental bittersweet grows in forests, fields, habitat edges and gaps, and even coastal areas. Its fast and aggressive growth can completely cover native vegetation, which can lead to girdling, uprooting (due to its heavy weight), and shading of native species. Fallen, rotting leaves can even change soil chemistry and prevent the germination of native species.

## NATIVE ALTERNATIVES



### CLIMBING BITTERSWEET

*Celastrus scandens*

**Garden Use:** Can cover large trellises, pergolas and snags.

**Growing Conditions:** Adaptable, but performs best in a moist soil in full sun.

**Size & Shape:** Woody, twining vine that can reach up to 5 m tall.

**Features:** Looks very similar to oriental bittersweet, but has bigger and more abundant fruit.

**Additional Info:** Only the female plants produce fruit. Often used in dry plant arrangements and to craft wreaths.



### VIRGINIA CLEMATIS

*Clematis virginiana*

**Garden Use:** Climbing on trellises, pergolas, fences and snags.

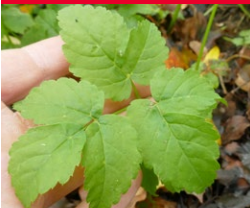
**Growing Conditions:** Adaptable, but performs best in well-drained soils in full sun or part shade.

**Size & Shape:** Reaches up to 5 m tall. Can be pruned back severely if needed.

**Features:** Produces an abundance of small, white flowers in late summer. Fragrant when in bloom. Seed heads are decorative.

# GROUNDCOVERS

## UNWANTED



**GOUTWEED**  
*Aegopodium podagraria*

**GOUTWEED** is an extremely aggressive perennial plant that spreads primarily through rhizomatous growth, up to 70 cm a year! It can also spread via seed production. It is notoriously difficult to remove due to its extensive rhizome network and ability to regenerate from small rhizome fragments. This somewhat shade tolerant species is highly competitive and adaptable to a variety of habitats. In closed-canopy forests, it can produce dense vegetative mats that outcompete native plant species for resources.

## NATIVE ALTERNATIVES



### **CANADA ANEMONE** *Anemonastrum canadense*

**Garden Use:** Use as a filler in difficult growing conditions and to brighten shaded areas.

**Growing Conditions:** Quite adaptable, but performs best under light shade in a soil that does not dry out in summer.

**Size & Shape:** Reaches up to 50 cm high.

Groundcover that spreads via underground rhizomes and fills the available space.

**Features:** In late spring, the beautiful egg-shaped white buds reveal yellow stamens upon opening.



### **LARGE-LEAVED ASTER** *Eurybia macrophylla*

**Garden Use:** Groundcover, shaded areas.

**Growing Conditions:** Performs best in well-drained soils in shade or part shade. Can grow in dry soils under tree shade.

**Size & Shape:** The foliage covers the soil and reaches around 25 cm tall. Only plants that receive enough light bloom. Flower stems can reach up to 80 cm tall. Over time, forms colonies via rhizomes.

**Features:** Large heart-shaped leaves. Produces violet flowers in summer (earlier than other asters species) when it receives enough light.

**Additional Info:** Native asters are among the best plants to attract pollinators to your garden and are referred to as keystone species. Many pollinator species need asters to complete their life cycle.

# GROUNDCOVERS

## UNWANTED



**GARLIC MUSTARD**  
*Alliaria petiolata*

**GARLIC MUSTARD** is an herbaceous biennial that produces vegetative rosettes in its first year. Single plants commonly produce about 600 seeds. Garlic mustard grows along paths and fence lines where humans and animals help disperse its seeds. It is slightly intolerant of acidic conditions, and prefers damp, calcium-rich soil with partial shade. It forms dense stands in early spring, monopolizing resources and shading out native species. Garlic mustard is avoided by deer, which encourages over-browsing of native species. It can also sabotage competitor species by harming their mycorrhizal partnerships with anti-fungal secretions. In Ontario, it has been shown to invade and reduce the biodiversity of old growth forests within five years.

## NATIVE ALTERNATIVES



### **GOLDEN ALEXANDERS**

*Zizia aurea*

**Garden Use:** Perennial borders, meadows.

**Growing Conditions:** Adaptable, but performs best in well-drained soils in full sun to part shade. Tolerates occasional dry periods once established.

**Size & Shape:** Narrow plant of up to 90 cm tall.

**Features:** Large flat yellow umbrella-shaped flowers in late spring.

**Additional Info:** A larval host plant for the [black swallowtail butterfly](#). Pollinators, including short-tongued bees, visit the flowers.



### **OSTRICH FERN**

*Matteuccia struthiopteris*

**Garden Use:** Woodland gardens, pond edges, rain gardens.

**Growing Conditions:** Performs best in a rich, moist soil in filtered light. Can grow in full sun in wet soils. Tolerates periodic flooding.

**Size & Shape:** Reaches up to 1.5 m tall. Forms large colonies over time.

**Features:** Jurassic-looking display of tall fronds.

**Additional Info:** The young, unfurled, fronds (fiddleheads) are delicious when cooked; a spring-time delicacy!

# GROUNDCOVERS

## UNWANTED



**LESSER CELANDINE**  
*Ficaria verna*

**LESSER CELANDINE** is a low-growing short-lived perennial with yellow flowers. In addition to producing viable seeds, this species can also reproduce via small bulb-like clones called bulbils. This plant will form dense colonies on forest floors that displace native vegetation. The leaves are also toxic to most mammals.

## NATIVE ALTERNATIVES



### **YELLOW MARSH MARIGOLD**

*Caltha palustris*

**Garden Use:** Pond edges, rain gardens.

**Growing Conditions:** Wet soils in full sun to shade.

**Size & Shape:** Clumps of up to 50 cm tall.

**Features:** This cheerful plant is one of the first to bloom in the spring. Vibrant yellow flowers.

**Additional Info:** Can go dormant in summer if the soil dries out. Wear gloves when working with this plant as it can cause skin reactions.



### **DOWNY YELLOW VIOLET**

*Viola pubescens*

**Garden Use:** Woodland garden.

**Growing Conditions:** Well-drained, rich soil in filtered light.

**Size & Shape:** Up to 30 cm tall.

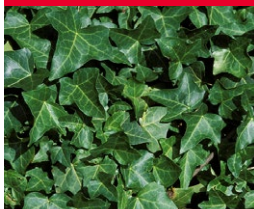
**Features:** Small, pansy-like yellow flower.

**Additional Info:** [Fritillary butterflies](#) use violet plants as larval hosts.



# GROUNDCOVERS

## UNWANTED



**ENGLISH IVY**  
*Hedera helix*

**ENGLISH IVY** is commonly planted to provide quick cover for walls and buildings, and as a groundcover in commercial landscapes. Unfortunately, it quickly forms a dense mat that suppresses native plants. English ivy grows rapidly and needs very little light or water once it has established, and even continues to grow during the winter.

## NATIVE ALTERNATIVES



### **EASTERN TEABERRY**

*Gaultheria procumbens*

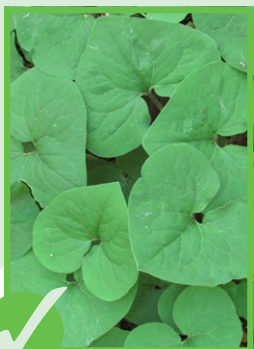
**Garden Use:** Evergreen, woodland gardens.

**Growing Conditions:** Prefers acidic, moist soils in part shade.

**Size & Shape:** Groundcover of up to 15 cm tall.

**Features:** Beautiful shiny dark-green foliage. The white flowers are followed by red berries.

**Additional Info:** The wintergreen flavored berries are edible and the leaves can be used to make tea.



### **CANADA WILD GINGER**

*Asarum canadense*

**Garden Use:** Woodland gardens, shaded areas.

**Growing Conditions:** Performs best in rich, moist, well-drained soil in part shade or shade. Leaf litter is beneficial.

**Size & Shape:** Reaches up to 20 cm tall and spreads via rhizomes.

**Features:** The large, soft, heart-shaped leaves form a beautiful, dense groundcover. Small brownish-purple flowers appear near the ground in early spring.

**Additional Info:** Although the root has a ginger-like smell, this species is not related to the ginger that is commonly used in cooking.

# GROUNDCOVERS

## UNWANTED



**CREeping YELLOW LOOSESTRIFE**  
*Lysimachia nummularia*

**CREeping YELLOW LOOSESTRIFE** is a trailing species with paired or solitary yellow flowers. This commonly sold landscape plant is invasive and readily spreads in habitats with moist soils such as ditches, and along the banks of streams, rivers, and ponds. It prefers moist soils but can also tolerate a wide range of habitat and environmental conditions. This species does not produce viable seeds, rather it spreads effectively by vegetative fragmentation.

## NATIVE ALTERNATIVES



### HEART-LEAVED FOAMFLOWER

*Tiarella cordifolia*

**Garden Use:** Woodland gardens, shaded perennial beds.

**Growing Conditions:** Performs best in a rich soil that does not dry out under filtered light. Leaf litter is beneficial.

**Size & Shape:** Groundcover of up to 30 cm tall.

**Features:** Racemes of small white flowers with elongated stamens in spring. The foliage remains attractive throughout the growing season and can be evergreen in some cases.



### VIRGINIA STRAWBERRY

*Fragaria virginiana*

**Garden Use:** Groundcover near trees and shrubs or between stepping stones, lawn replacement in light traffic areas, woodland gardens, meadows.

**Growing Conditions:** Grows best in a well-drained soil in full sun to part shade.

**Size & Shape:** Reaches up to 20 cm tall. Sprawling habit; stolons root where they touch the ground.

**Features:** The pretty, five-petaled white flowers are followed by delicious red fruit. The foliage remains attractive throughout the growing season and turns reddish in the fall.

**Additional Info:** Very tasty! Can be used to make jam and pies, and is the parent of today's cultivated strawberries.





# GROUNDCOVERS

## UNWANTED



**LESSER PERIWINKLE**  
*Vinca minor*

**LESSER PERIWINKLE** is an ornamental groundcover popular for its fast growth, dense coverage, shiny evergreen leaves, and showy purple flowers. It is a shade-tolerant species that escapes gardens and is highly invasive in forests. It is very adaptable and forms dense mats, choking out native plant species. This species spreads rapidly via seeds, roots, and stems.

## NATIVE ALTERNATIVES



### THREE-TOOTHED CINQUEFOIL

*Sibbaldiopsis tridentata*

**Garden Use:** Rock gardens, xeriscapes, coastal gardens.

**Growing Conditions:** Thrives in poor and dry soils in sunny areas. Adapted to grow in sandy and gravelly soils. Tolerant of salt spray.

**Size & Shape:** Groundcover of up to 20 cm tall.

**Features:** Beautiful white flowers in early summer. The divided foliage is evergreen and turns red in the fall.



### BUNCHBERRY

*Cornus canadensis*

**Garden Use:** As a groundcover in woodland gardens or under trees and shrubs.

**Growing Conditions:** Prefers cool conditions and moist, well-drained areas under filtered light; very hardy.

**Size & Shape:** Reaches up to 15 cm tall.

**Features:** The small greenish flowers that are surrounded by 4 showy white bracts turn into red fruits. The attractive, semi-evergreen foliage turns red and purple in the fall.

**Additional Info:** Exhibits explosive pollination that is triggered by small insects crawling across the flowers. The **berries** are edible, but not to everyone's taste.



# GROUNDCOVERS

## UNWANTED



**COMMON BRASS-BUTTONS**  
*Cotula coronopifolia*

**COMMON GRASS-BUTTONS** is a small trailing perennial with button-like yellow flowers and succulent leaves. It has a high salt tolerance and can be found growing in saltmarshes, brackish pools, and muddy banks. It can colonize disturbed areas with bare wet soils, producing large patches that may impede the establishment of native species.

## NATIVE ALTERNATIVES



### SEASIDE BUTTERCUP

*Halimolobos cymbalaria*

**Garden Use:** Coastal gardens.

**Growing Conditions:** Wet open areas. Tolerant to salt spray.

**Size & Shape:** Reaches up to 30 cm tall; forms low mats over time.

**Features:** Produces yellow flowers.

**Additional Info:** Visited by bumble bees. Native across the country.



### ROSEROOT

*Rhodiola rosea*

**Garden Use:** Rock gardens, coastal gardens, xeriscapes.

**Growing Conditions:** Grows best in coarse, well-drained soils exposed to sun. Salt and drought tolerant. Very hardy.

**Size & Shape:** Reaches up to 30 cm tall.

**Features:** The foliage is grey-green and fleshy. Produces yellow flowers in late spring.

**Additional Info:** Also a great alternative to similar looking non-native sedums.

# FLOWERS

## UNWANTED



**CYPRESS SPURGE**  
*Euphorbia cyparissias*

**CYPRESS SPURGE** was grown as an ornamental but has since escaped into the wild. It prefers sun but tolerates shade as well. It can be found growing in open, disturbed sites like meadows, pastures, and roadsides. It grows quickly and aggressively, releasing chemicals from its roots which stop other plants growing near it. This helps it crowd out native species. It is toxic to humans, livestock, and wildlife when consumed or when its sap contacts skin. The sap causes nausea, vomiting and diarrhea when eaten. It can cause blindness if it gets in people's eyes and skin contact causes redness, swelling and blisters.

## NATIVE ALTERNATIVES



### HAIRY BEARDTONGUE

*Penstemon hirsutus*

**Garden Use:** Perennial borders, meadows, dry sites.

**Growing Conditions:** Requires a well-drained soil and grows well in full sun or part shade.

**Size & Shape:** Up to 50 cm tall when in bloom. The foliage is shorter.

**Features:** Delicate, tubular lavender and white flowers in late spring. Foliage turns red in fall.

**Additional Info:** Visited by hummingbirds, bumble bees and other native bees. Larval host plant for the Baltimore checkerspot butterfly.



### PEARLY EVERLASTING

*Anaphalis margaritacea*

**Garden Use:** Perennial borders, meadows, dry sites.

**Growing Conditions:** Prefers full sun and tolerates poor, low nutrient, dry soil.

**Size & Shape:** Reaches up to 60 cm tall.

**Features:** The small white flowers with a yellow centre are attractive for weeks. The soft, silvery foliage is highly decorative and adds contrast to plantings.

**Additional Info:** Host plant for [American](#) and [painted lady](#) butterflies.



# FLOWERS

## UNWANTED



**DAME'S ROCKET**  
*Hesperis matronalis*

**DAME'S ROCKET** is a short-lived perennial with white-purple four-petaled flowers. This garden escape can be found along roadsides, waste soils, open woodlands, meadows, and stream banks. It is particularly persistent in habitats with moist soils such as riparian zones where it can outcompete native plant species, reducing biodiversity. A single plant can produce upwards of 20,000 seeds!

## NATIVE ALTERNATIVES



### SPOTTED GERANIUM

*Geranium maculatum*

**Garden Use:** Woodland gardens, meadows, perennial borders.

**Growing Conditions:** Can be cultivated in various soil types under partial shade to full sun.

**Size & Shape:** Clumps of up to 60 cm tall.

**Features:** Pink or light purple flowers in late spring. Beautiful, deeply cut foliage.



### WATER AVENS

*Geum rivale*

**Garden Use:** Perennial borders, pond edges, rain gardens.

**Growing Conditions:** Prefers moist soils in full sun to part shade.

**Size & Shape:** Reaches up to 60 cm tall when in bloom. The foliage is shorter.

**Features:** Produces small, bell-shaped, cream and purple flowers in late spring. The seed heads are decorative and the foliage remains attractive throughout the growing season.

**Additional Info:** Also named chocolate root. Watch how bumblebees execute aerial acrobatics to access the nodding flowers.

# FLOWERS

## UNWANTED



**PURPLE JEWELWEED**  
*Impatiens glandulifera*

**PURPLE JEWELWEED** is very recognizable by its flowers that resemble an English 'policeman's helmet', by the whorled leaves, and by a recognizable purple and reddish stalk. This annual plant can take over areas with moist soils, including streams and riverbanks, reducing native plant diversity. It produces a lot of nectar which can attract pollinating insects away from native flowering plants. This plant has seed pods that, when ripe, can explode or shoot seeds up to 7 m from the plant.

## NATIVE ALTERNATIVES



### SPOTTED JOE PYE WEED

*Eutrochium maculatum*

**Garden Use:** Back of perennial borders, pond edges, rain gardens.

**Growing Conditions:** Quite adaptable, but performs best in a rich, moist soil in full sun.

**Size & Shape:** A giant perennial that can reach over 180 cm tall (shorter in difficult growing conditions).

**Features:** A truly spectacular plant. The fragrant, fuzzy, pink flower clusters are decorative for weeks. Attractive whorled foliage on spotted stems.

**Additional Info:** A pollinator magnet!



### BLUE VERVAIN

*Verbena hastata*

**Garden Use:** Rain gardens, wet areas, meadows, perennial borders.

**Growing Conditions:** While it is at its best in constantly moist soils, it can also be cultivated in a regular garden soil that does not dry out too much. Prefers sunny conditions.

**Size & Shape:** Tall and narrow plant that reaches up to 1.8 m tall.

**Features:** In late summer, the small, purple-blue flowers appear for weeks on candelabra-like inflorescences and attract many species of pollinators.

**Additional Info:** Host plant for the [common buckeye butterfly](#).



# FLOWERS

## UNWANTED



**LARGE-LEAVED LUPINE**  
*Lupinus polyphyllus*

**LARGE-LEAVED LUPINE** is a herbaceous perennial with a tall attractive inflorescence. Flowers are commonly a bluish-purple but can exhibit white or pink colourations. This ornamental species can escape gardens and invade meadows, fallow fields, and along roadsides where it can displace native plant species. This species is also toxic to livestock.

## NATIVE ALTERNATIVES



### FOXGLOVE BEARDTONGUE

*Penstemon digitalis*

**Garden Use:** Woodland gardens, meadows, perennial borders.

**Growing Conditions:** Grows in various types of well-drained soils in full sun to part shade.

**Size & Shape:** Reaches up to 1.2 m.

**Features:** Tubular white flowers in early summer.

**Additional Info:** Visited by hummingbirds.



### RED COLUMBINE

*Aquilegia canadensis*

**Garden Use:** Rock gardens, woodland gardens, perennial borders.

**Growing Conditions:** Grows well in various types of well-drained soils in sun or part shade. Adapted to poor and rocky soils.

**Size & Shape:** Reaches up to 50 cm tall.

**Features:** One of our prettiest native plants according to many. The red and yellow tubular flowers are produced early in the season.

**Additional Info:** Individual specimens may be short-lived, but will self-seed. Loved by hummingbirds.

# FLOWERS

## UNWANTED



**PURPLE LOOSESTRIFE**  
*Lythrum salicaria*

**PURPLE LOOSESTRIFE** is a perennial plant that spreads rapidly by seed and root fragments. The tiny seeds are dispersed by wind, mud, moving water, wildlife and humans. A mature plant can produce up to 2.5 million seeds that can survive in the soil for up to 20 years. Purple loosestrife grows in wetlands, roadside ditches, wet pastures, and along shorelines where it can crowd out native plants and reduce biodiversity.

## NATIVE ALTERNATIVES



### CARDINAL FLOWER

*Lobelia cardinalis*

**Garden Use:** Pond edges, rain gardens and perennial borders.

**Growing Conditions:** Grows best in a moist soil under filtered light. Can grow in full sun if the soil does not dry out too much. Intolerant to drought.

**Size & Shape:** Tall stems of up to 1.5 m emerge from a low basal rosette.

**Features:** This is one of our most striking native species. The scarlet flowers open along tall erect stems for several weeks in late summer.

**Additional Info:** A [hummingbird](#) magnet!



### WILD BERGAMOT

*Monarda fistulosa*

**Garden Use:** Perennial borders, meadows, dry areas.

**Growing Conditions:** Grows in various well-drained soil types in full sun to part shade.

**Size & Shape:** Reaches up to 1.2 m tall.

**Features:** Produces tubular, pink to lavender flowers for several weeks in summer.

**Additional Info:** The greyish, scented foliage and flowers are edible.

# FLOWERS

## UNWANTED



**JAPANESE SWEET COLTSFOOT**  
*Petasites japonicus*

**JAPANESE SWEET COLTSFOOT** is a large herbaceous perennial that was introduced to North America as an ornamental likely due to its unique massive heart-shaped foliage. This species can reach up to 1.8 m tall and its broad leaves can shade out native plant species. It can escape cultivation and invade semi-shaded moist habitats via aggressive rhizome growth.

## NATIVE ALTERNATIVES



### AMERICAN SPIKENARD

*Aralia racemosa*

**Garden Use:** Woodland gardens, back of shaded perennial borders.

**Growing Conditions:** Adaptable, but grows best in a rich, well-drained soil in filtered light.

**Size & Shape:** One of our tallest native woodland herbaceous plants; grows up to 1.5 m tall.

**Features:** Spectacular plant. The large racemes of small white flowers are followed by dark berries. Beautiful compound leaves.

**Additional Info:** Birds such as [thrushes](#) feed on the berries. The root is aromatic and is used in herbal medicine.



### RED BANEBERRY

*Actaea rubra*

**Garden use:** Woodland gardens, shaded beds.

**Growing conditions:** Performs best in a rich, moist soil under filtered light. Leaf litter is beneficial.

**Size & Shape:** Reaches up to 90 cm tall.

**Features:** The white flower clusters are followed by attractive red (sometimes white) berries. The foliage is decorative throughout the growing season.

**Additional Info:** The fruit is poisonous.



# FLOWERS

## UNWANTED



**COMMON VALERIAN**  
*Valeriana officinalis*

**COMMON VALERIAN** is a tall perennial herbaceous plant with clusters of small white or pale pink flowers. This species can grow over 1 m in height and has wind-borne seeds. It has escaped cultivation and is spreading rapidly. This aggressive species outcompetes native plant vegetation and is a threat to native fens and grass wetlands.

## NATIVE ALTERNATIVES



### LARGE FALSE SOLOMON'S SEAL

*Maianthemum racemosum*

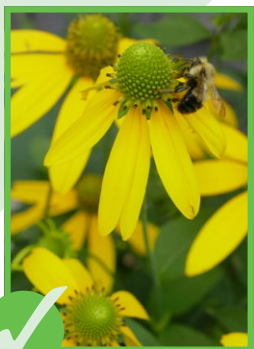
**Garden Use:** Woodland gardens, shaded perennial beds.

**Growing Conditions:** Quite adaptable, but at its best in a rich, well-drained soil in filtered light. Leaf litter is beneficial.

**Size & Shape:** 60 to 90 cm. Beautiful arching stems. Forms colonies over time.

**Features:** Interesting throughout the growing season; the racemes of ivory flowers are followed by bright red berries and the foliage turns yellow in the fall.

**Additional Info:** Like many woodland plants, it can be slow to establish, but it is worth the wait!



### CUT-LEAVED CONEFLOWER

*Rudbeckia laciniata*

**Garden Use:** Back of perennial borders, rain gardens.

**Growing Conditions:** Adaptable, but at its best in a well-drained soil in full sun.

**Size & Shape:** A giant herbaceous plant that reaches up to 2.2 m tall.

**Features:** The beautiful yellow flowers last for weeks in summer. Dark green foliage.

**Additional Info:** Attracts a myriad of pollinators and songbirds such as [American goldfinches](#) that feed on the seeds.



# GRASSES

## UNWANTED



**HEATH SEDGE**  
*Carex flacca*

**HEATH SEDGE** is a cool-season sedge that grows to a height of 30–45 cm and a width of 30–45 cm, forming a dense clump that slowly creeps and spreads. Heath sedge thrives in rich soils. It is often found in full sun, but also does well in the shade of large trees. It prefers areas of high pH bedrock, rich forests, and wet meadows. Heath sedge threatens and out-competes native species that live in these areas.

## NATIVE ALTERNATIVES



### PLANTAIN-LEAVED SEDGE

*Carex plantaginea*

**Garden Use:** Woodland gardens, shaded perennial borders.

**Growing Conditions:** Prefers moist soils in part shade.

**Size & Shape:** Reaches up to 30 cm tall.

**Features:** Semi-evergreen foliage.

**Additional Info:** Many native sedge species have great potential as ornamental plants. Pennsylvania sedge can be used as a lawn alternative under trees.



### CHRISTMAS FERN

*Polystichum acrostichoides*

**Garden Use:** Woodland gardens, shaded areas.

**Growing Conditions:** Quite adaptable, but performs best in a rich, well-drained soil in shade to partial shade.

**Size & Shape:** Tidy clumps that reach up to 60 cm tall.

**Features:** Lush, glossy, evergreen foliage that adds texture to plantings.

**Additional Info:** The evergreen fronds can be used to compliment a bouquet of dried native wildflowers.

# GRASSES

## UNWANTED



**SILVERGRASSES**  
*Miscanthus* spp.

**SILVERGRASSES** are large perennial grasses used as ornamentals and for biofuel production. These grasses can grow up to 3 m in height! They prefer well-drained soils and full sun, and can form dense stands along roadsides, riparian areas, forest edges, and disturbed sites. These invasive species spread via rhizome growth and wind-dispersed seeds. Stands of silvergrasses are highly flammable and pose a fire hazard.

## NATIVE ALTERNATIVES



### OLD SWITCH PANICGRASS

*Panicum virgatum*

**Garden Use:** Back of perennial borders, low screens, meadows, pond hedges, rain gardens.

**Growing Conditions:** Quite adaptable, but at its best in a moist soil in full sun. Drought tolerant.

**Size & Shape:** Grows up to 1.8 m tall and forms clumps.

**Features:** The green foliage turns yellow in the fall. The loose clusters add movement to plantings and provide winter interest.

**Additional Info:** Native grasses are larval host plants for [skipper butterflies](#). Songbirds eat the seeds.



### LITTLE BLUESTEM

*Schizachyrium scoparium*

**Garden Use:** Rain gardens, meadows, fall interest, winter interest.

**Growing Conditions:** Grows in well-drained soils in full sun. Drought-resistant once established.

**Size & Shape:** Reaches up to 120 cm tall.

**Features:** Foliage turns bronze in fall.

**Additional Info:** Perfect for meadow plantings. Tends to flop in soils that are too rich; avoid fertilizing.

# GRASSES

## UNWANTED



**REED  
CANARYGRASS**  
*Phalaris arundinacea*

**REED CANARYGRASS** is a tall perennial grass that can reach 1.5 m in height with some cultivars exhibiting white stripes on their leaves. This species is comprised of many cultivars and subspecies. Several have escaped cultivation or hybridized and become invasive in North America. It is an aggressive invader of wetland habitat, outcompeting native plant species in as little as 5–6 months! It can clog wetlands and waterways altering the hydrology and increasing flood risk. This species can spread via seed and rhizome growth.

## NATIVE ALTERNATIVES



### **BLUEJOINT REEDGRASS**

*Calamagrostis canadensis*

**Garden Use:** Pond edges, rain gardens, meadows.

**Growing Conditions:** At its best in moist soils in full sun to part shade.

**Size & Shape:** Up to 1.5 m tall.

**Features:** Showy tan coloured inflorescences that remain attractive in winter.

**Additional Info:** A great choice for wetland restoration projects.



### **BOTTLERUSH GRASS**

*Elymus hystrix*

**Garden Use:** Woodland gardens, part shade plantings.

**Growing Conditions:** Grows best in well-drained soils in part shade.

**Size & Shape:** Can reach up to 1 m tall.

**Features:** Produces decorative bottle brush looking spikelets that provide an interesting texture.

**Additional Info:** Larval host plant for the northern pearly-eye butterfly.



# GRASSES

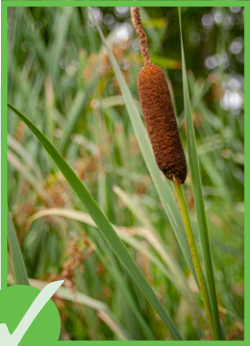
## UNWANTED



**COMMON REED**  
*Phragmites australis*  
*ssp. australis*

**COMMON REED** is a very tall grass, often reaching heights of 3 m or more. Common reed grows in wet ditches, and various freshwater or brackish shores and wetlands. It spreads quickly through its roots – up to several metres per year! It can quickly form large, dense stands that exclude native species and can alter the structure and function of native marsh ecosystems.

## NATIVE ALTERNATIVES



### **BROAD-LEAVED CATTAIL**

*Typha latifolia*

**Garden Use:** Ponds.

**Growing Conditions:** At its best in saturated soils and shallow waters in full sun to part shade.

**Size & Shape:** Erect plant that reaches up to 2 m tall.

**Features:** Tall, flat bluish-green leaves. Iconic flowering spikes.

**Additional Info:** Many parts of the plant are edible if prepared appropriately.



### **HARD-STEMMED BULRUSH**

*Schoenoplectus acutus*

**Garden Use:** Ponds.

**Growing Conditions:** Grows in saturated soils and shallow waters in full sun.

**Size & Shape:** Reaches up to 2 m tall.

**Features:** Produces tall dark green foliage and brown flowers in summer.

**Additional Info:** Provides habitat and food for many wildlife species.

# AQUATICS

## UNWANTED



**EUROPEAN FROG-BIT**  
*Hydrocharis morsus-ranae*

**EUROPEAN FROG-BIT** is a free-floating, short-lived perennial plant with small white flowers. Its round floating leaves resemble water lilies. This aquatic plant forms dense vegetative mats on the surface of stagnant or slow-moving water. The dense mats block sunlight, reducing the growth of native submerged plants and impeding recreational activities such as swimming and fishing. When the plant dies back in the fall the dense vegetation decays, consuming oxygen. The low oxygen levels can lead to the death of aquatic animals.

## NATIVE ALTERNATIVES



### FRAGRANT WATER-LILY

*Nymphaea odorata*

**Garden Use:** Ponds.

**Growing Conditions:** The rhizome needs to be planted at the bottom of a pond. More flowers are produced in full sun.

**Size & Shape:** The foliage and flowers usually float on the water surface.

**Features:** Iconic foliage and beautiful, large, white flowers that open and close each day in summer.



### TURION DUCKWEED

*Lemna turionifera*

**Garden Use:** Ponds.

**Growing Conditions:** Free-floating in still waters in full sun to part shade.

**Size & Shape:** Fast growing, floating plant.

**Features:** Very small, bright green foliage that forms mats on the water surface.

**Additional Info:** Food source for ducks and shelter for a wide variety of aquatic insects.



# AQUATICS

## UNWANTED



**FLOWERING-RUSH**  
*Butomus umbellatus*

**FLOWERING-RUSH** is an aquatic perennial with green, grass-like foliage and pink, almond-scented flowers. It can be difficult to identify as it resembles several native species, but quickly crowds out other plants. It is considered a noxious weed in many areas. It impedes the use of shallow waters for recreation, hinders irrigation and industrial activities, and alters natural ecosystems.

## NATIVE ALTERNATIVES



### PICKERELWEED

*Pontederia cordata*

**Garden Use:** Ponds.

**Growing Conditions:** Grows at pond edges; root system should be submerged under a few centimeters of water; more flowers are produced in full sun.

**Size & Shape:** Reaches up to 60 cm tall.

**Features:** Tropical looking plant that produces glossy leaves and spikes of purple flowers in summer.

**Additional Info:** Native bees and other invertebrates visit the flowers. Can be cultivated in submerged containers.



### BROAD-LEAVED ARROWHEAD

*Sagittaria latifolia*

**Garden Use:** Ponds.

**Growing Conditions:** In saturated soils or submerged up to 30 cm of water in full sun to part shade.

**Size & Shape:** The lush foliage reaches up to 1 m tall.

**Features:** Large sword-like leaves. Produces three-petaled white flowers in summer.

**Additional Info:** Several duck species feed on the tubers.

# AQUATICS

## UNWANTED



**YELLOW IRIS**  
*Iris pseudacorus*

**YELLOW IRIS** invades ditches, wetlands, streams, lake shorelines, and shallow ponds. This plant reproduces through seed dispersal, rhizomes, and when pieces of the roots break off, which forms new plants. The seeds float on the water in spring and fall, causing them to spread quickly. Several hundred plants may be connected underwater due to the extensive root system, which creates a thick mat that damages wildlife habitat, reduces water flow, and crowds out native vegetation. Yellow iris can be toxic to humans and animals and cause human skin irritations.

## NATIVE ALTERNATIVES



### HARLEQUIN BLUE FLAG

*Iris versicolor*

**Garden Use:** Pond edges, rain garden, perennial borders.

**Growing Conditions:** While it thrives when being grown submerged, it can also be cultivated in a regular garden soil that does not dry out too much in summer. Blooms more heavily in full sun, but grows well in part shade too.

**Size & Shape:** Tidy clumps of up to 80 cm tall.

**Features:** Beautiful clump forming plant that produces violet-blue flowers with yellow veining in late spring. The erect foliage remains decorative throughout the growing season.



### AMERICAN SWEETFLAG

*Acorus americanus*

**Garden Use:** Pond edges, rain gardens, moist perennial borders.

**Growing Conditions:** Grows well in saturated soils and even under a few centimeters of water. Also thrives in a regular garden soil that does not dry out too much in full sun to part shade.

**Size & Shape:** Reaches up to 1 m tall.

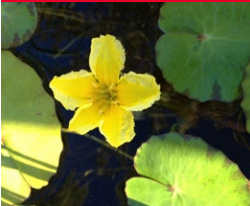
**Features:** Erect foliage.

**Additional Info:** Fragrant rhizome and stem. A cherished plant used for trade, medicine and ceremony by Indigenous Peoples.



# AQUATICS

## UNWANTED



**YELLOW  
FLOATINGHEART**  
*Nymphoides peltata*

Native to Eurasia, **YELLOW FLOATING HEART** is an aquatic species that resembles a water-lily. It spreads both by seed and vegetatively, making this species extremely difficult to control. It forms dense mats that impede water flow and disturbs sensitive aquatic habitats. It was initially used as an ornamental pond plant but has escaped cultivation and has the potential to cause major damage – if you see this species, be sure to report it immediately. Yellow floating heart prefers depths of 0–4 m and slow-moving water.

## NATIVE ALTERNATIVES



### **VARIEGATED POND-LILY**

*Nuphar variegata*

**Garden Use:** Ponds.

**Growing Conditions:** Large rhizome planted at the bottom of a pond.

**Size & Shape:** The leaves usually float on the water surface and the flowers tend to be held a few centimetres above it.

**Features:** Round, yellow flowers, The floating leaves are oblong and dark green.

**Additional Info:** More tolerant to shade and deep water than the fragrant water-lily.



### **WILD CALLA**

*Calla palustris*

**Garden Use:** Pond edges and shallow waters.

**Growing Conditions:** Requires constant moisture in part shade. Likes slightly acidic conditions.

**Size & Shape:** Reaches up to 30 cm tall. Spreads via long, spongy rhizomes.

**Features:** Produces shiny, heart-shaped leaves. The flowers are encircled by a showy white spathe in summer and turn into bright red berries.

**Additional Info:** Can go dormant in the summer's heat.





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29	Red-Osier Dogwood	M. Priesnitz	
30	Pale Swallowwort	H. Grimshaw-Surette	
30	Black Swallowwort	Leslie J. Mehrhoff, University of Connecticut, Bugwood.org	
30	American Groundnut	S. Jean	
30	Swamp Milkweed	H. Grimshaw-Surette	
31	Oriental Bittersweet	S. Jean	
31	Climbing Bittersweet	Public Domain	
31	Virginia Clematis	A. Belliveau	
32	Goutweed	S. Jean	
32	Canada Anemone	R. Evans	
32	Large-Leaved Aster	Harriet Irving Botanical Gardens	
32	Yellow Stamen	Rodger Evans	
33	Garlic Mustard	J. Hallworth	
33	Golden Alexanders	S. Jean	
33	Ostrich Fern	S. Jean	
33	Black Swallowtail Butterfly	Public Domain	
34	Lesser Celandine	Richard Gardner, Bugwood.org	
34	Yellow Marsh Marigold	M. Priesnitz	
34	Downy Yellow Violet	A. Belliveau	
34	Fritillary butterflies	Public Domain	
35	English Ivy	James H. Miller, USDA Forest Service, Bugwood.org	
35	Eastern Teaberry	M. Priesnitz	
35	Canada Wild Ginger	S. Jean	
36	Creeping Yellow Loosestrife	S. Jean	
36	Heart-Leaved Foamflower	M. McCall	
36	Virginia Strawberry	M. Priesnitz	
36	Strawberry	Public Domain	
37	Lesser Periwinkle	Harriet Irving Botanical Gardens	
37	Three-Toothed Cinquefoil	M. Priesnitz	
37	Bunchberry	A. Belliveau	
37	Berries	Public Domain	
38	Common Brass-Buttons	Mary Ellen (Mel) Harte, Bugwood.org	
38	Seaside Buttercup	M. Buck	
38	Roseroot	Harriet Irving Botanical Gardens	
39	Cypress Spurge	Leslie J. Mehrhoff, University of Connecticut, Bugwood.org	
39	Hairy Beardtongue	M. Priesnitz	
39	Pearly Everlasting	Harriet Irving Botanical Gardens	
39	American/Painted Lady Butterflies	Public Domain	
40	Dame's Rocket	Leslie J. Mehrhoff, University of Connecticut, Bugwood.org	
40	Spotted Geranium	S. Jean	
40	Water Avens	M. Priesnitz	
41	Purple Jewelweed	N. Wong	
41	Spotted Joe Pye Weed	S. Jean	
41	Blue Vervain	S. Jean	
41	Common Buckeye Butterfly	Public Domain	
42	Large-Leaved Lupine	A. Belliveau	

42	Foxglove Beardtongue	John Ruter, University of Georgia, Bugwood.org	51	Pickernelweed	M. Priesnitz
42	Red Columbine	S. Jean	51	Broad-Leaved Arrowhead	M. Priesnitz
43	Purple Loosetrife	Harriet Irving Botanical Gardens	51	Butterfly	Public Domain
43	Cardinal Flower	S. Jean	52	Yellow Iris	S. Jean
43	Wild Bergamot	Harriet Irving Botanical Gardens	52	Harlequin Blue Flag	M. Priesnitz
43	Hummingbird	Public Domain	52	American Sweetflag	Public Domain
44	Japanese Sweet Coltsfoot	J. Ito	53	Yellow Floating Heart	A. Banner
44	American Spikenard	S. Jean	53	Variigated Pond-Lily	A. Belliveau
44	Red Baneberry	Public Domain	53	Wild Calla	R. Evans
44	Thrush	Public Domain	Back Cover		S. Jean
45	Common Valerian	Leslie J. Mehrhoff, University of Connecticut, Bugwood.org			
45	Large False Solomon's Seal	S. Jean			
45	Cut-Leaved Coneflower	S. Jean			
45	American Goldfinch	Public Domain			
46	Heath Sedge	A. Belliveau			
46	Plantain-Leaved Sedge	Charles T. Bryson, USDA Agricultural Research Service, Bugwood.org			
46	Christmas Fern	R. Evans			
47	Silvergrasses	John Ruter, University of Georgia, Bugwood.org			
47	Old Switch Panicgrass	John Ruter, University of Georgia, Bugwood.org			
47	Little Bluestem	Rob Routledge, Sault College, Bugwood.org			
47	Skipper Butterfly	Public Domain			
48	Reed Canarygrass	C. Evans			
48	Bluejoint Reedgrass	A. Belliveau			
48	Bottlerush Grass	Chris Evans, University of Illinois, Bugwood.org			
48	Northern Pearly-eye Butterfly	Public Domain			
49	Common Reed	Caleb Slemmons, National Ecological Observatory Network, Bugwood.org			
49	Broad-Leaved Cattail	R. Evans			
49	Hard-Stemmed Bulrush	Rob Routledge, Sault College, Bugwood.org			
50	Europeanfrog-Bit	Leslie J. Mehrhoff, University of Connecticut			
50	Fragrant Water-Lily	R. Evans			
50	Turion Duckweed	R. Evans			
50	Aquatic Insects	Public Domain			
51	Flowering-Rush	Invasive Species Council British Columbia			



## REPORT INVASIVE SPECIES

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Early detection and rapid response (EDRR) is a process that involves locating invasive species just as they are beginning to invade a new area and quickly managing the species before they are able to establish and spread elsewhere. Although taking preventative steps is the best way to avoid invasive species arrivals, the early detection and treatment of a new invasive species increases the likelihood that eradication or containment is possible. If you think you see any invasive species, report it immediately.



Report possible sightings of invasive species by contacting your provincial invasive species council or by submitting your observation to [iNaturalist.ca](https://www.inaturalist.ca) online or through the mobile app.

When reporting an invasive species, please include the following information:

- The exact location (GPS coordinates)
- Observation date
- Photos
- Noticeable identifying features

### NEW BRUNSWICK

#### New Brunswick Invasive Species Council

**Email:** [report@nbinvasives.ca](mailto:report@nbinvasives.ca)

**Website:** [www.nbinvasives.ca](http://www.nbinvasives.ca)

### NOVA SCOTIA

#### Nova Scotia Invasive Species Council

**Email:** [info@nsinvasives.ca](mailto:info@nsinvasives.ca)

**Website:** [www.nsinvasives.ca](http://www.nsinvasives.ca)



**This guidebook describes some of the most detrimental invasive species found in and around Nova Scotia and New Brunswick gardens and offers native alternatives that can boost your backyard's biodiversity.**



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