

# A Guide for Southern Ontario



## Beautiful Non-Invasive Plants for your Garden

Spring 2016 - 2nd Edition

## Foreword from Landscape Ontario

Thank you for picking up this guide and showing your support for the importance of non-invasive plants in the landscape.

The alternative plants listed here match the growing conditions, site requirements and garden effect of their sometimes problematic invasive counterparts. They were chosen based on their availability at Ontario's nurseries and garden centres. This guide will help you take full advantage of the wealth and variety of planting stock available across the province.

The issue of invasive species can be controversial and complex. A plant can be a huge problem in one area of the province and present very little risk in another area. It is hard to believe that some of our favourite garden plants can cause considerable economic and environmental damage, but they can.

The vast majority of horticultural species pose no threat, and can be beautiful additions to any garden. However, some species can cause serious problems if planted near natural areas where they have a tendency to out-compete native species and alter local environmental conditions. For example, some species reproduce by creeping roots, and may be perfectly suitable in built-up urban locations where spread into natural ecosystems is unlikely. Furthermore, not all plants in a certain family or genus are the same, and cultivated varieties are not necessarily as prolific as their parent species, but more research is needed.

When making your plant choices, we at Landscape Ontario wish you the best success. Ontario's green industry is on hand to provide you with a multitude of alternatives listed in this guide. We hope you make full use of the Grow Me Instead guide, and look forward to continuing our service to you in the years to come.

Sincerely,

Tony DiGiovanni

*Executive Director, Landscape Ontario Horticultural Trades Association*



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We acknowledge the following for their assistance and ongoing contribution to help stop the spread of invasive plants in Ontario.

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- The many individuals and organizations who contributed photographs



## Gardening Best Management Practices

Follow the tips below to reduce the spread of invasive plants and help create sustainable gardens and landscapes.

- Learn to properly identify and manage invasive plants on your property. If an infestation is discovered, remove plants as soon as possible to prevent their spread. Techniques for removal include pulling, removing flowers before they go to seed, and hiring a professional to apply herbicides.
- Dispose of yard waste through your local municipality or in your backyard compost. Do not dump yard waste in nearby natural areas as this can smother natural vegetation, cause erosion and spread invasive plants. Some particularly hardy invasive plants may require prolonged solar heating to ensure all plant material is thoroughly killed.
- Parts of invasive plants capable of reproducing (seeds and roots) should only be composted if the material is taken to a large-scale municipal composting facility where temperatures in the compost pile reach high enough temperatures to kill the living material. Be sure to check with your local municipality before depositing the material, to ensure their composting programs reach the required temperatures. Backyard composters do not reach the required temperatures to kill invasive plant material, therefore do not place the material in your compost.
- If your municipality does not have a sufficient composting program, carefully place reproductive material in black plastic garbage bags. Seal the bags tightly and leave them in direct sunlight for one to three weeks to kill any living plant material before depositing in your local landfill.
- Do not remove vegetation from natural areas; they may be rare native plants or even invasive plants.
- Dispose of annual water plants at the end of the growing season properly. Transplanting them into local waterways could result in these invasive plants over-wintering during mild winters and negatively impacting native wetland and water-side vegetation.
- Purchase non-invasive or native plants from reputable suppliers. Native plants provide food and shelter to native insects and animals, including songbirds. A list of nurseries specializing in native plants can be found on this website: [www.nanps.org](http://www.nanps.org).
- Share these best management practices and spread the word to friends, family and neighbours. Know what you are growing and be cautious when exchanging seeds and plants with other gardeners.
- When in doubt about whether a plant is invasive or how it should be controlled, contact **"Invading Species Hotline"** @ **1-800-563-7711** or [www.invadingspecies.com](http://www.invadingspecies.com) or [www.ontarioinvasiveplants.ca](http://www.ontarioinvasiveplants.ca)



# Impacts of Invasive Plants in Ontario

An invasive plant is an alien species whose introduction or spread negatively impacts native biodiversity, the economy and/or society, including human health. Second to habitat loss, invasive species have been identified by the International Union for Conservation of Nature as the most significant threat to biodiversity.

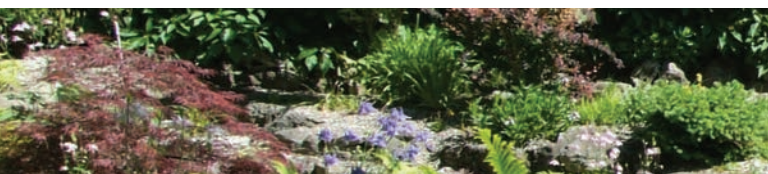
Invasive plants are spreading through our natural ecosystems, urban landscapes and agricultural lands at an alarming rate. These plants are introduced and spread through several pathways including:

- International, national, and regional travel and trade
- Horticulture and gardening
- Seed mixtures (re-vegetation, birdseed, wildflower)
- Transportation and utility corridors
- Construction and maintenance equipment
- Recreation
- Wildlife, livestock, humans and pets

If native plant communities are replaced by invasive plant infestations, biodiversity declines and habitats change. Invasive plants are more than “plants out of place”. They are far-reaching in their impacts, permanently altering landscapes and ecosystem functions and costing economies millions of dollars each year. Impacts associated with the introduction and spread of invasive plants are not unique to one industry, organization, or community – all citizens, regions, and industries in Ontario are affected. These unwanted invaders can negatively impact:

- Rangelands by reducing forage quality and quantity
- Forestry operations by competing with seedlings for light, nutrients, and water
- Recreation opportunities by puncturing tires, obstructing trails, and reducing aesthetics
- Water quality and quantity by increasing erosion and sedimentation
- Ecosystems by disrupting nutrient cycles and habitat availability

Impacts of invasive plants are sometimes irreversible and restoration can be extremely difficult, if not impossible. Preventing their establishment and spread is key.



## Native Plants

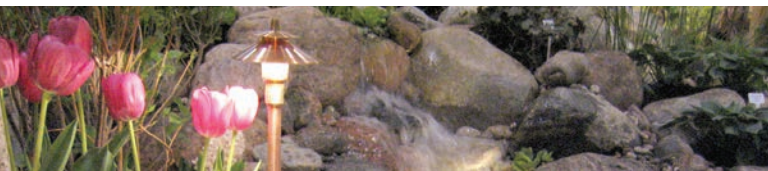
The soil and the climate of a region in large part dictate the species of plants and animals that naturally exist there. These species are referred to as native. They evolved together over thousands of years, forming strong ecological connections. A native plant is simply a plant that occurs naturally or has existed for many years in an area and is connected in an ecological sense to other plants and animals found there. This vegetation may also be referred to as indigenous.

Specialized native plant nurseries grow native plants from seed collected in the same region in which the resulting plants will be used. By working with plants that are genetically adapted to your area, you will maximize growth and vigor, and minimize heat-stress, winterkill, frost damage, and insect and disease problems. Remember, the most expensive planting is a failed planting. This practice of collecting local seed for local use protects the genetic diversity of native plants. Genetic diversity is the variation of heritable characteristics present in a population of the same species. Ecologists view this diversity as important as diversity at the species and ecosystem level.

From a gardener's perspective, the source – also referred to as provenance – is equally important. Plants grown from seeds that are collected from healthy plants growing in nearby similar environments typically perform better. When visiting a nursery, inquire about the seed source of plants that interest you. You may be surprised at what you find. Always ask your local garden supplier about the source of their plants and encourage them to provide locally-adapted material. The widely available Canada Plant Hardiness Zones ([www.planthardiness.gc.ca](http://www.planthardiness.gc.ca)), or Ontario's Tree Seed Zones ([www.fgca.net](http://www.fgca.net)) can help you with seed source decisions.

## Grow Me Instead

Grow Me Instead informs gardening enthusiasts about some of the popular invasive plants that can sometimes cause problems in the landscape. It highlights a variety of native and non-native plant alternatives found to be non-invasive in Ontario. Whether you are adding new, attractive plants to your garden, starting a landscape project, or removing invasive plants, we hope this guidebook will be a valuable resource. By working together, we can ensure that future generations will enjoy the naturally beautiful landscape of Ontario, while creating sustainable communities, healthy ecosystems, and vibrant gardens.



# Groundcovers and Grasses

English ivy is native to Europe, western Asia and northern Africa. It has been developed into hundreds of varieties and can now be found in gardens throughout North America.

Although technically a vine, this evergreen perennial is commonly used as a groundcover in dense shade. Whether in shade or sun, English ivy will persist and spread vegetatively through its long vines that root at the nodes in almost any soil type. It is easily identified by its dark green three-lobed leaves placed alternately on its flexible woody vine.

Despite its pervasiveness in gardens and nearby natural areas, not a single North American animal uses English ivy for food. Indeed, this is one of the causes of its invasive nature, the other being its considerable adaptability.



Goutweed is native to Eurasia but can now be found in gardens throughout North America.

Also referred to as Bishop's weed and snow on the mountain, this perennial groundcover tolerates a wide range of soil conditions including moist areas and disturbed sites. It is highly shade-tolerant and competitive once established, reproducing by seed and spreading by underground stems called rhizomes. It is most commonly found around shrubs in old gardens.

Plants grow about 30 cm high with green leaves that are divided into three leaflets. Some cultivars have variegated leaflets that are green near the centre but whitish around their margins. Umbrella-like white flowers appear in mid-summer.





Periwinkle is native to Europe, but can now be found in gardens throughout North America. Its popularity is based on its ease of care, dense growth, and its ability to grow in dry shade, a difficult gardening situation.

Periwinkle grows to a height of 10-15 cm and is characterized by glossy evergreen foliage and long-lasting blue-violet flowers. It has few pests or diseases outside its native range, which contributes to its persistence. It spreads via its shallow root system and can survive in a range of soil conditions.



**Garden use:** groundcover for sunny gardens

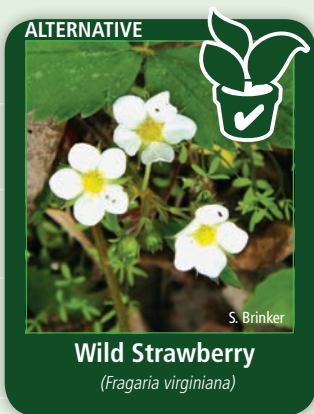
**Growing conditions:** sun; sand, loam or clay; dry to average soil

**Size and shape:** low-growing and spreading; 15 cm tall

**Flower and fruit:** small white flowers in late-spring; small edible red berries early-summer

**Leaves:** three-lobed and toothed

**Additional info:** spreads by runners and forms colonies



# Groundcovers and Grasses

**Garden use:** groundcover for shady location

**Growing conditions:** part sun to shade; average to moist, humus-rich soil

**Size and shape:** 15-20 cm tall; clump-forming

**Flower and fruit:** single maroon flower under leaves in late-spring

**Leaves:** soft green heart-shaped

**Additional info:** spreads slowly by roots to form attractive groundcover; drought-tolerant once established; deer-resistant; roots have a sweet ginger smell

ALTERNATIVE



S. James

**Wild Ginger**

(*Asarum canadense*)

**Garden use:** shady groundcover; woodland habitat garden

**Growing conditions:** partial shade; dry to moist; prefers acidic soil

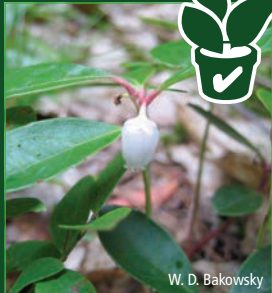
**Size and shape:** 10-15 cm tall

**Flower and fruit:** fragrant white flowers in spring; bright red berries in fall

**Leaves:** small, tough and fragrant; can be chewed for appealing minty flavour

**Additional info:** medicinal teas made from fruit and leaves

ALTERNATIVE



W. D. Bakowsky

**Wintergreen**

(*Gaultheria procumbens*)

**Garden use:** groundcover for shade; woodland garden

**Growing conditions:** part sun to deciduous shade (needs spring sun); average to moist soil

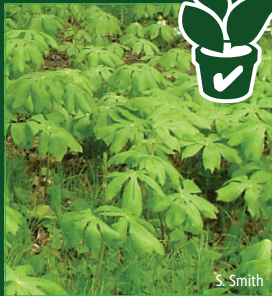
**Size and shape:** up to 40 cm tall with one or two leaves

**Flower and fruit:** a single white flower under leaves in spring; edible fruit

**Leaves:** large, umbrella-like, deeply lobed leaves unravel in early spring

**Additional info:** one of the first wildflowers to emerge in spring; forms colonies; fruit is edible only when ripe (yellow and soft) in late summer, do not eat the fruit until it is ripe, unripe fruits are greenish, hard, and cause a laxative effect.

ALTERNATIVE



S. Smith

## Mayapple

(*Podophyllum peltatum*)

**Garden use:** groundcover for woodland garden

**Growing conditions:** typically found on rich soils but can withstand nutrient poor soil in damp, cool conditions; acid soil or peat moss

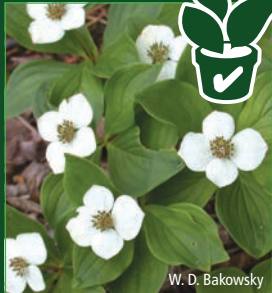
**Size and shape:** 7-20 cm tall

**Flower and fruit:** showy cream-green flowers throughout summer followed by red berries

**Leaves:** smooth-edged upper leaves are green above and whitish below; oblong or egg-shaped and pointed at the tip

**Additional info:** often grows on stumps or rotting logs in coniferous forests

ALTERNATIVE



W. D. Bakowsky

## Bunchberry

(*Cornus canadensis*)

# Groundcovers and Grasses

**Garden use:** groundcover in shade

**Growing conditions:** partial shade; rich and moist, well-drained soil

**Size and shape:** low, trailing deciduous shrub up to 45 cm tall

**Flower and fruit:** red berries in fall

**Leaves:** dense foliage turns scarlet in fall

**Additional info:** native to eastern North America

ALTERNATIVE



S. James

**Running Euonymus**

*(Euonymus obovatus)*

**Garden use:** groundcover for shady woodland or rock garden

**Growing conditions:** partial to full shade; average to moist, humus rich loam soils

**Size and shape:** 13-25 cm tall

**Flower and fruit:** small white star-like flowers on spikes in spring and early-summer

**Leaves:** maple-like leaves turn red in fall and remain throughout winter

**Additional info:** spreads by runners

ALTERNATIVE



S. Smith

**Foamflower**

*(Tiarella cordifolia)*

**Garden use:** groundcover for shady woodland garden

**Growing conditions:** sun to partial shade; dry to moderate; sand or clay

**Size and shape:** 30-60 cm tall; clump-forming

**Flower and fruit:** showy pink or magenta blooms in late-spring and early-summer

**Leaves:** loose mounds of deeply-lobed leaves

**Additional info:** nectar source for hummingbirds; often forms colonies

ALTERNATIVE



**Wild Geranium**

(*Geranium maculatum*)

**Garden use:** rooftop, butterfly and bird gardens

**Growing conditions:** sun to partial shade; dry to medium; sand and loam

**Size and shape:** 5-15 cm tall shrub with multiple stems

**Flower and fruit:** showy white-pink flowers in spring and summer followed by showy red fruit

**Leaves:** shiny and leathery, bronze in fall

**Additional info:** drought tolerant; moderate spreader; good replacement for invasive groundcovers

ALTERNATIVE



**Bearberry**

(*Arctostaphylos uva-ursi*)



# Groundcovers and Grasses

*Miscanthus* grasses are native to Africa and Asia, but many species including these ones are used in gardens in temperate regions around the world. Some common species include Chinese silver grass, zebra grass, amur silver grass, among others.

It is a herbaceous perennial plant growing up to 2 metres or more in height and forming dense clumps.

Flower heads change in colour from red to pink, before maturing to a silver colour. It spreads by rhizomes and seed.



**Garden use:** ornamental grass in border plantings; intermixed with wildflowers in prairie and meadow gardens as well as rooftop gardens

**Growing conditions:** full sun to partial shade; well-drained sand or loam

**Size and shape:** 1-2.5 metres tall, clumping grass

**Flower and fruit:** blue-red "turkey's foot" flowers in summer

**Leaves:** elegant blades turn bronze in fall

**Additional info:** extremely drought-tolerant and useful for erosion control; attracts birds and butterflies



**Garden use:** ornamental grass in border plantings; intermixed with wildflowers in prairie and meadow gardens as well as rooftop gardens

**Growing conditions:** full sun to partial shade; dry to moist sand, loam and clay

**Size and shape:** 1-2.5 metres tall

**Flower and fruit:** rich gold-purple sprays of flowers and seeds in the fall

**Leaves:** long, flat and narrow blades are dull to dark green

**Additional info:** drought and compaction-tolerant; consumed by wildlife and livestock

ALTERNATIVE



E. Snyder

### Indian Grass

(*Sorghastrum nutans*)

**Garden use:** ornamental grass; dry garden

**Growing conditions:** full sun; sand to clay; dry to medium soils

**Size and shape:** 1-2 metres tall, densely clumping

**Flower and fruit:** loosely clustered seed head

**Leaves:** coarse blue-green leaves

**Additional info:** easy to grow, slow-spreading and long-lived; consumed by wildlife and livestock

ALTERNATIVE



S. James

### Switchgrass

(*Panicum virgatum*)

# Trees and Shrubs

This medium-sized tree is prized for its dense crown and ability to tolerate difficult urban conditions.

Some cultivars have columnar crowns; others like Crimson King have deep red leaves.

The prolific seed production of most cultivars, coupled with the species' ability to grow in dense shade, make Norway maple especially invasive and threatening to natural habitats.

Many urban ravines and parks exhibit nearly pure stands of this species. The dense shade in these stands prevents sunlight from reaching the ground, making it difficult for groundcovers and shrubs to grow. Wildlife habitat is compromised and bare soil becomes susceptible to erosion.

Norway maples have in some cases been sold under the name "red maple". To distinguish between Norway's and other lookalikes, look for key identification features, such as a white or milky sap that flows from the stem of a Norway maple leaf when removed.



**Garden use:** specimen planting

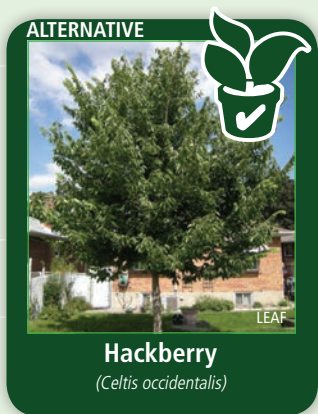
**Growing conditions:** full sun to moderate shade; adapted to range of soils; drought resistant; tolerates difficult urban conditions

**Size and shape:** 15 metres tall with broad, upright crown

**Flower and fruit:** small, unassuming green flowers; reddish-purple berry-like fruit maturing in fall and often persisting through winter

**Leaves:** green, elm-like leaves turning to yellow in fall

**Additional info:** long-lived (150 years) hardy tree; interesting ridged bark pattern; persistent fruits provide food for over-wintering birds



**Garden use:** specimen planting; edible ornamental; screen; naturalized area

**Growing conditions:** full sun to partial shade; moist to semi-dry soils; tolerant of a wide range of soil conditions

**Size and shape:** 5-8 metres tall with round, open crown

**Flower and fruit:** white flower clusters at branch tips in spring; edible fruit ripen in summer

**Leaves:** emerging leaves purplish-bronze on *A. laevis* only; both species rich green in summer, turning to yellow, orange and deep red in fall

**Additional info:** highly prized by gardeners and birds for delicious fruit

ALTERNATIVE



S. Smith

**Downy, Smooth and Canada Serviceberry**

(*Amelanchier arborea*, *A. laevis* and *A. canadensis*)

ALTERNATIVE



S. James

**Sugar, Silver and Freeman Maples**

(*Acer saccharum*, *A. saccharinum* and *A. x freemanii*)

**Garden use:** shade tree; specimen planting

**Growing conditions:** full sun to partial shade; moist soils for silver and Freeman maples; deep, rich soils for sugar maple

**Size and shape:** 30-35 metres tall; upright to rounded crown

**Flower and fruit:** small, yellow to red flowers emerging before leaf-out in early spring; paired, winged maple "keys" developing in spring on silver and Freeman maples, and in fall on sugar maples

**Leaves:** medium to light green deeply lobed leaves; fall colours from brilliant yellows to reds

**Additional info:** silver maple has an aggressive root system and should not be planted near pipes and foundations; Freeman maple is a natural hybrid of red and silver maple and exhibits some of the best attributes of both species; sugar maple may have difficulty in exposed, urban situations

# Trees and Shrubs

The hardy and adaptable Russian olive was typically planted in poor sites and along roadways due to its high drought and salt tolerance and rapid growth.

A native of southern Europe through the Himalayas, it is generally single-stemmed with a full crown reaching a height of 3-4 metres.

Russian olive is often misidentified as a willow because of its dull green-gray leaves, but is differentiated by its fruits, which mature in autumn, and its long thorns. It is especially problematic because of its ability to reproduce via root suckers.



**Garden use:** stand alone shrub ideal for shady areas; planted for its fall colour and fall blooming effect

**Growing conditions:** full sun to partial shade; prefers cool, moist acidic soils; somewhat pollution tolerant

**Size and shape:** 4-8 metres tall; multi-stemmed and wide-spreading

**Flower and fruit:** showy yellow flowers with spicy scent in fall; seedpods persist through winter and can eject seeds when touched

**Leaves:** bright to dark green; vibrant yellow colour in fall compliments late blooms

**Additional info:** the only Canadian tree or shrub to bloom in fall; common name originates from its use as divining rod material to locate subterranean water and mineral deposits





**Garden use:** small specimen planting with edible fruit for birds and people

**Growing conditions:** full sun to part shade; prefers disturbed soils

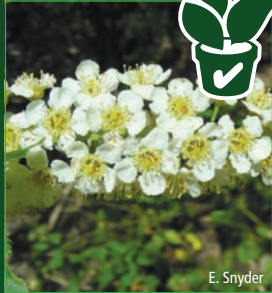
**Size and shape:** 4-10 metres tall; multi-stemmed small tree or large shrub with 3-5 metre wide crown

**Flower and fruit:** cylindrical clusters of small white aromatic flowers in spring; small, red-purple cherries in late summer

**Leaves:** glossy dark green in summer; yellow in fall

**Additional info:** important commercial food crop used in jellies, juices, preserves and syrup; chokecherry is used in many land reclamation projects and on erosion-prone and riparian areas due to its extensive root mass

ALTERNATIVE



E. Snyder

### Chokecherry

(*Prunus virginiana*)

**Garden use:** specimen planting; naturalized areas; screen or hedge

**Growing conditions:** partial shade with moist soil; full sun acceptable if site is cool and moist

**Size and shape:** 5-6 metres tall; prominently tiered branching with loose crown

**Flower and fruit:** small, fragrant white flowers in flat clusters in spring; small fruit changing from green to red to blue-black in summer; fruit stalks persistent through winter with bright coral red colour

**Leaves:** prominently veined, alternate, deep green leaves typically in whorled clusters at branch tips

**Additional info:** desirable for its tiered branch structure, lending to its other common name "Pagoda dogwood"

ALTERNATIVE



S. James

### Alternate-Leaf Dogwood

(*Cornus alternifolia*)

# Trees and Shrubs

Autumn olive originated in Asia, but is now a common shrub in southwestern Ontario where it thrives on nutrient-poor soil and spreads via root suckers.

It grows to a height of 3-4 metres in a short period of time and is generally multi-stemmed.

Sometimes confused with Russian olive, autumn olive has deep green leaves with silvery undersides, deep red to purple fruit, and a more shrubby appearance than its single-stemmed cousin. Silver-white flowers produce a strong fragrance in May.



**Garden use:** stand alone shrub, screen or hedge

**Growing conditions:** full sun to partial shade; adaptable to various soil types

**Size and shape:** 2-3 metres tall and wide; dense and rounded with age

**Flower and fruit:** white to pink domed flower clusters in spring; dry red-brown pods in fall

**Leaves:** medium green; vibrant yellow-bronze in fall

**Additional info:** very hardy and adaptable shrub offering winter appeal with exfoliating bark; numerous colour variations are available commercially across Ontario



**Garden use:** naturalized area, or specimen planting

**Growing conditions:** full sun to partial shade

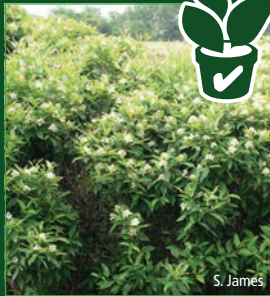
**Size and shape:** 2-3 metres tall and wide

**Flower and fruit:** cream-white flowers and prominent white berry clusters in late spring, with vibrant red stems persisting through winter

**Leaves:** blue-green; deep crimson-purple in fall

**Additional info:** excellent shrub for varied conditions; responds well to pruning; may spread via root suckers

ALTERNATIVE



S. James

### Gray Dogwood

(*Cornus foemina ssp. racemosa*)

**Garden use:** large decorative shrub or small tree which adds colour to gardens and streetscapes

**Growing conditions:** moist, loam or sandy, well drained soils; prefers soil pH of 7.5 or higher

**Size and shape:** up to 8 metres tall and 6 metres wide

**Flower and fruit:** an early flowering tree with many small lavender to pink flowers; flat green seedpods contain 5-10 small round seeds

**Leaves:** large, alternate, heart shaped leaves; turn to yellow in fall

**Additional info:** one of the first flowering trees in the spring; dense, showy displays of flowers can even emerge from the trunk of this tree

ALTERNATIVE



S. James

### Eastern Redbud

(*Cercis canadensis*)

# Trees and Shrubs

## Non-native Bush Honeysuckles

All five of these honeysuckles originally range from central Asia through the mountains of Europe.

They have all shown an invasive tendency -with rapid growth and high reproduction- taking over large natural areas.

These multi-stemmed plants range from 2-5 metres tall and wide at maturity, and have simple leaves that remain green through the fall. Summer leaf colour is fairly similar among these four ranging from a blue-green to dark green. The flowers range in colour from white to pink to crimson.



**Garden use:** shrub borders, small flowering tree, hedges

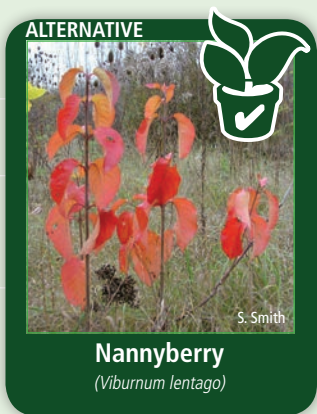
**Growing conditions:** full sun to shade; moist to dry sites

**Size and shape:** 4-5 metres tall; irregular to rounded form with upright branching

**Flower and fruit:** dense, showy cream-white flower clusters 5-10 cm wide in spring; hanging clusters of edible 1 cm long fruit change from green through yellow, pink, rose and finally blue-black

**Leaves:** light green maturing to dark, glossy green; deep maroon to red in fall

**Additional info:** a very versatile species capable of growing in full shade or open sites; grows as a shrub or small tree if pruned; fruit are used by birds and wildlife and can be eaten off the branch



**Garden use:** Fast-growing decorative shrub, screen or hedge

**Growing conditions:** tolerates a range from sun to shade; grows best in wet to moist soils

**Size and shape:** 1.5 to 4 metres tall and 1.5 metres wide

**Flower and fruit:** attractive clusters of small white flowers blooming in early summer; white berries attract birds and other wildlife

**Leaves:** dark green foliage turns red to purple in the fall; stems retain vibrant red colour year round

**Additional info:** this shrub's showy red twigs are a favourite for centrepieces and other decorative displays; historic uses of this plant include cordage, basketry and dye making; commonly used for shoreline stabilization; can spread quickly

ALTERNATIVE



S. Smith

### Red-osier dogwood

(*Cornus Sericea*)

**Garden use:** specimen planting; single shrub or hedge

**Growing conditions:** full sun to part shade; best in well-drained, slightly acidic soils

**Size and shape:** up to 1 metre tall and 2 metres wide

**Flower and fruit:** small, bell-shaped flowers that start as yellow-green and can turn to purple-red throughout the summer; flowers attract bumblebees and other pollinators

**Leaves:** dark green leaves turning yellow to red in the fall

**Additional info:** attracts and provides shelter for a diverse wildlife community including hummingbirds, grouse and other wildlife; drought tolerant

ALTERNATIVE



J. Makin

### Native Bush Honeysuckles

(*Diervilla lonicera*)



# Trees and Shrubs

Multiflora rose is usually formed as a fountain-shaped shrub, or as a scrambling shrub climbing over other plants to a height of 3-5 metres.

Originally from Japan it was introduced to North America as a soil conservation measure due to its adaptability to different soil conditions, salt tolerance, and ease of transplanting.

Multiflora rose is distinguished from native North American roses by its fragrant white flowers that are arranged in clustered "inflorescences" of more than ten flowers, whereas native roses rarely exceed three per cluster.

Multiflora rose is spread by birds and is a prolific seed producer. It can re-sprout roots from stems that come in contact with soil. It readily invades open areas and forms dense thickets, replacing native vegetation.



**Garden use:** fast-growing specimen planting; screen or hedge; edible ornamental

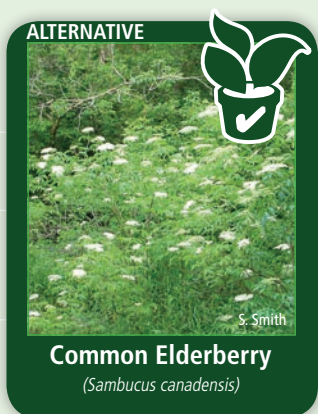
**Growing conditions:** full sun; moist soils

**Size and shape:** 2-4 metres tall with rounded crown; multi-stemmed with open branching

**Flower and fruit:** large (18-26 cm wide) clusters of cream-white flowers in early summer; purple-black edible fruit in late summer

**Leaves:** bright green leaves with seven leaflets

**Additional info:** transplants easily; suitable for rough sections of garden; some have used fruit in jams, juice, jelly and wine



**Garden use:** specimen planting; edible ornamental

**Growing conditions:** sun to partial shade; wide moisture and soil tolerance

**Size and shape:** 30-150 cm tall shrub

**Flower and fruit:** showy cream to pink flowers in spring and early summer; orange to red "rose hips"

**Leaves:** medium green leaves growing from small-thorned branches

**Additional info:** edible rosehips commonly used to make tea

ALTERNATIVE



### Wild Roses

(*R. carolina*, *R. virginiana*)

**Garden use:** flowering ornamental; screening or hedgerow

**Growing conditions:** full sun to partial shade; medium to moist; medium textured soils

**Size and shape:** 90-180 cm tall shrub

**Flower and fruit:** showy pink to purple flowers throughout summer; edible red fruit

**Leaves:** wide, dense foliage covered in bristly hairs

**Additional info:** dense hairs covering leaves and stems produce scent of licorice and cedar; this native shrub spreads quickly via underground rhizomes

ALTERNATIVE



### Flowering Raspberry

(*Rubus odoratus*)

# Trees and Shrubs

Common barberry was originally brought to North America by early colonists. It grows up to 4 metres tall and is a host plant for black rust, a disease of wheat crops.

More recently, Japanese barberry has been introduced for garden use, as well as incline stabilization and erosion control.

This 1-1.5 metre tall bush grows in a rounded form and has thorns along its many branches. Barberries are prolific seed producers and have germination rates as high as ninety percent.

The seeds ripen in fall, persist on the shrub through winter, and are carried long distances by birds where they readily invade natural areas and the forest understory.

Barberries are adapted to all soil types, can survive in full sun or full shade, and have shown an ability to acidify soil thereby affecting native habitats.



**Common and Japanese Barberry**  
(*Berberis vulgaris* and *B. thunbergii*)

**Garden use:** rock garden; border; ground cover; foundation planting; specimen planting

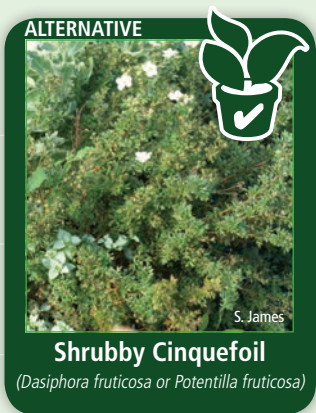
**Growing conditions:** full sun; dry to normal soil; drought tolerant; salt tolerant

**Size and shape:** 30-130 cm tall rounded shrub; numerous upright branches

**Flower and fruit:** pale to bright yellow, buttercup-shaped flowers produced in early to late summer

**Leaves:** dense leaves divided into five or seven leaflets; foliage is covered in fine silvery, silky hair

**Additional info:** there are over 130 different cultivars of this plant in the horticultural trade; attracts butterflies; also used for erosion control



**Shrubby Cinquefoil**  
(*Dasiphora fruticosa* or *Potentilla fruticosa*)

**Garden use:** border shrub; screening or hedgerow

**Growing conditions:** full sun to partial shade; normal to moist soil; drought tolerant; salt tolerant; tolerant of compacted soils

**Size and shape:** 1-3 metres tall; multi-stemmed, suckering shrub

**Flower and fruit:** white to whitish pink flowers produced in clusters in early spring; bluish-black berries produced in early fall, staying on the plant through the winter

**Leaves:** glossy, bright green leaves; alternate and simple; beautiful fall foliage ranges in colour from crimson to apricot

**Additional info:** the name "chokeberry" is derived from the edible but bitter tasting berries

ALTERNATIVE



M. Moroz

### Chokeberry

(*Aronia melanocarpa*)

**Garden use:** border shrub; screening or hedgerow

**Growing conditions:** full sun to partial shade; dry to wet soil; drought tolerant; salt tolerant

**Size and shape:** 1.5-3 metres tall; rounded shrub

**Flower and fruit:** small yellowish catkins appear in spring; waxy, bluish-white berries with strong aromatic scent ripen in summer and persist on the branches

**Leaves:** leaves are dark green, waxy and fragrant with yellow resin dots on the underside; deciduous to semi-evergreen; alternate

**Additional info:** the berries were used as a source of wax for early settlers; the scent is still used in candle making

ALTERNATIVE



S. James

### Bayberry

(*Morella (syn. Myrica) pensylvanica*)

# Vines

Japanese Honeysuckle Vine is native to Japan and Korea, and was introduced as a horticultural species.

Not to be confused with the similarly named invasive shrub, this climbing vine is evergreen to semi-evergreen; the vines reach lengths of 24 metres and grow either by climbing over other vegetation or trailing along the ground.

Pairs of fragrant, tubular flowers can range in colour from white to yellow and are found at leaf axils along the stem.

This vine can cover and kill trees either by toppling them from the weight of the vines, or by blocking out sunlight.

It spreads rapidly through runners and by long-range seed dispersal by birds and other animals. It out-competes native species for habitat, sunlight, and nutrients.



**Garden use:** climbing vine; groundcover; can also be trained as a shrub

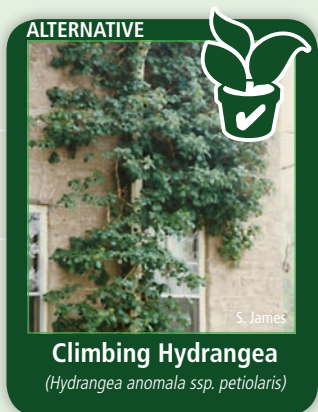
**Growing conditions:** partial to full shade; moist to well-drained soil

**Size and shape:** grows 9-12 metres in length, 1 metre tall when trained as a shrub; climbs by clinging with aerial roots; prominent lateral branches spread from the support structure

**Flower and fruit:** large flat-topped clusters of fragrant white flowers; blooms early spring until late summer

**Leaves:** dark green glossy leaves; heart-shaped and serrated; persist until late fall

**Additional info:** attractive to birds, wildlife, and bees; new plants may take a few years to establish, but grows quickly afterwards and gets large with age





**Garden use:** climbing vine; can be trained into shrub form

**Growing conditions:** full sun to partial shade (will not consistently flower in full shade); moist, humus-rich, well-drained soils

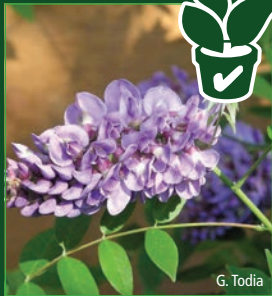
**Size and shape:** up to 15 metres long; climbs by twining stems; requires trellis or other support structure

**Flower and fruit:** elongated clusters of purple-blue flowers, blooms late spring to early summer

**Leaves:** shiny, dark green divided leaves with 7-11 leaflets; foliage turns golden in the fall

**Additional info:** attractive to butterflies; should not be confused with Japanese or Chinese wisteria (*Wisteria floribunda*, *W. sinensis*) which can be invasive

ALTERNATIVE



G. Todia

### American Wisteria

(*Wisteria frutescens*)



**Garden use:** climbing vine; can be trained into shrub form

**Growing conditions:** full sun to partial shade; moist soil

**Size and shape:** 4-6 metres in length; climbs by twining stems

**Flower and fruit:** fragrant tubular pink-purple flowers with yellow centres; grow in terminal whorls; blooms throughout much of the growing season from late spring until early fall

**Leaves:** pairs of round, blue-green leaves

**Additional info:** attractive to hummingbirds and butterflies

ALTERNATIVE



S. James

### Goldflame Honeysuckle

(*Lonicera x heckrottii*)



# Vines

Oriental Bittersweet is native to Asia and was introduced in the 1860's as a garden ornamental.

This brown, woody vine can grow up to 18 metres in length and climbs by twining around supports.

The fruits turn from green to yellow and split open in the fall to reveal very attractive bright red-orange seeds, the twigs with berries are used in flower arrangements.

However, when it escapes from gardens, oriental bittersweet may directly compete with the rare American bittersweet (*C. scandens*) for light and space, or may hybridize with it, jeopardizing the genetic purity of the native species. This vine can kill trees, smothering them and blocking sunlight.



**Garden use:** climbing vine; screen

**Growing conditions:** full sun to partial shade; moist, well-drained soil; tolerant of urban conditions

**Size and shape:** perennial twining vine, growing 6-9 metres in length

**Flower and fruit:** unique pipe-shaped yellowish flowers; bloom late spring to early summer

**Leaves:** dark green heart-shaped leaves

**Additional info:** rapid growth once established; fragrant flowers; attractive to bees, butterflies and birds



**Garden use:** climbing vine; ground cover

**Growing conditions:** full sun, roots require mulch or shaded area; light loam; moist soil

**Size and shape:** twining vine; 3-4 metres in length

**Flower and fruit:** large velvety dark purple flowers; bloom late summer to early fall; other cultivars of jackman clematis may have red, white, pink or lavender flowers

**Leaves:** dense foliage with bright to dark green leaves 5-10 cm in length

**Additional info:** lightly fragrant flowers

ALTERNATIVE



S. Smith

### Jackman Clematis

(*Clematis x jackmanii*)

**Garden use:** climbing vine

**Growing conditions:** full sun to partial shade; average to moist soil

**Size and shape:** twining vine; grows up to 5 metres in length

**Flower and fruit:** white four-petaled flowers; bloom late summer to early fall; distinctive fluffy white seeds remain on the plant through winter

**Leaves:** leaves divided into three leaflets with toothed edges

**Additional info:** fragrant flowers attract hummingbirds, bees, and butterflies; self-sows and will root where the vine touches the ground

ALTERNATIVE



E. Snyder

### Virgin's Bower

(*Clematis virginiana*)

# Aquatics

European frog-bit is native to Eurasia but can now be found from the St. Lawrence River to Lake Ontario, throughout the Kawartha Lakes, the Rideau and Ottawa River systems and along Lakes Erie and St. Clair.

It is also spreading northward at scattered sites throughout the southern margin of the Canadian Shield.

It grows free-floating or as a rooted mat in shallow waters.

Roots can grow up to 50 cm long with numerous root hairs.

Leaves are floating and form a rosette; white-pink flowers emerge in summer.



Native to Southern Europe and Asia, yellow floating heart was originally thought to only occur in ponds connecting to the Rideau Canal in Ottawa, but more recently an established population has been found near the Credit River in Mississauga.

This floating plant with heart-shaped leaves and bright yellow flowers is a rooted perennial that prefers slow moving rivers and lakes, ponds and canals.

It can establish in mud and in water up to 4 metres deep. When it grows in thick floating mats, it can create stagnant water with low oxygen levels, thus degrading fish habitat and limiting recreational activities.



Water soldier is an aquatic plant commonly sold in the aquarium and water garden industry. This plant is native to Europe and Central Asia. Currently the only two known wild populations of water soldier are located near Lake Simcoe and in the Trent River.

Water soldier, also known as water aloe, looks very similar to an aloe vera plant, or the top of a pineapple plant.

Water soldier grows underwater on the river bottom most of the year, and emerges in late spring and summer.

The leaves that grow once it has surfaced have air pockets enabling the plant to float. Water soldier forms dense populations with large masses of plants which out-compete other aquatic plant species.

A notable concern is that each leaf is lined with small serrated spines that can easily cut swimmers.



**Garden use:** ornamental in ponds and water gardens; provides shade for fish and habitat for invertebrates

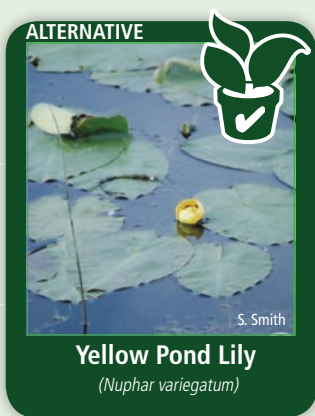
**Growing conditions:** found in lakes, ponds, quiet streams and rivers; can grow in sun or shade, but flowers more readily in sun

**Size and shape:** floating leaved perennial with thick and elastic leaf stalks; grows in water depths up to 2 metres

**Flower and fruit:** flowers: showy, yellow 4–6 cm wide with 6 showy petals; fruit: 2–4.5 cm long; green to red oval berries occurring in fall

**Leaves:** heart shaped leaves with rounded lobes 10-25cm long, submerged when young, floating when mature

**Additional info:** waterfowl and marsh birds eat seeds; mammals eat rhizomes and leaves



**Garden use:** ornamental in ponds and water gardens; provides shade for fish

**Growing conditions:** lakes, ponds, slow rivers and marshes; variety of sediment types

**Size and shape:** round stems rise toward water surface from fleshy rhizome buried in the sediment; grows in water depths up to 2 metres

**Flower and fruit:** white, showy, fragrant flowers 7-20 cm wide, open only from mid-morning to early afternoon throughout summer; flower produced on separate flower stalks growing directly from the rhizome; cultivars may also have pale pink flowers; leathery berries with many seeds ripening underwater in mid to late summer

**Leaves:** floating, round "lily-pad" with narrow V-shaped split; underside of leaf is reddish purple

**Additional info:** waterfowl eat fruit and seeds; roots are eaten by mammals

ALTERNATIVE



S. Smith

**Fragrant Water Lily**

*(Nymphaea odorata)*





**Garden use:** ornamental in ponds and water gardens, provides shade for fish and habitat for invertebrates, oxygenator

**Growing conditions:** shallow ponds, lakes, rivers, streams and marshes and wet shorelines; full sun

**Size and shape:** single stems emerge from rhizomes; up to 1 metre tall with erect stalk emerging from the water surface; stems are floating and hairless

**Flower and fruit:** bright pink elongated flower clusters at stem tips; dark seeds form in late summer to early autumn.

**Leaves:** often reddish floating oval leaves; rounded or heart-shaped at the base

**Additional info:** hot pepper-flavoured leaves can be used in salads or cooked like spinach; seeds consumed by waterfowl in fall

ALTERNATIVE



W. D. Bakowsky

### Water Smartweed

(*Polygonum amphibium*)



# Aquatics

Fanwort, also called *Cabomba*, is native to the sub-tropic and temperate regions of South America. This submerged perennial plant is very popular in the aquarium industry and is widely available through pet stores across Ontario.

The first report of an established population of fanwort in Ontario was in Kasshabog Lake in 1991. It is currently found in a number of small nearby, landlocked lakes.

Fanwort has finely dissected, fan-shaped submerged leaves and small inconspicuous linear or rounded floating leaves. The flowers are small, white to pale yellow and have three petals. Rooted in substrate, this plant flourishes in slow flowing waters in streams, small rivers, ponds and lakes. Fanwort is extremely persistent once established and can form dense stands, displacing native vegetation, and impeding drainage in canals and streams.



**Garden use:** oxygenation, habitat enhancement for ponds and water gardens

**Growing conditions:** submerged aquatic found in lakes, ponds, streams, marshes and quiet rivers; overwinters as an evergreen under ice; tolerant to low light and cool water

**Size and shape:** coarse, branching stems and no roots; may drift and become loosely anchored in sediment

**Flower and fruit:** very small, stalk-less solitary flowers on submerged leaves; fruit is dark olive green, elliptic

**Leaves:** split into 2 equal, thread-like segments; sharply toothed; in whorls of 5-12; leaves get denser at the end of the stem and look like a raccoon's tail

**Additional info:** provides food and shelter for invertebrates; can become abundant in shallow ponds and form large beds; also known as hornwort; reproduces through fragmentation



**Garden use:** oxygenation, habitat enhancement for ponds and water gardens

**Growing conditions:** submerged aquatic found in lakes, ponds, marshes and rivers, sometimes common in lakes with low nutrient availability

**Size and shape:** Grow in depths of up to several metres; leaves are directly attached to slender stems; stems are anchored in sediment by shallow roots; stems branch profusely and form dense, tangled stands

**Flower and fruit:** white flower up to 9 mm wide, raised to the surface of the water by stalks 3 –20 cm long; oval beaked fruit 6 mm long, narrow and cylindrical occurring mid to late summer

**Leaves:** small and lance-shaped; bright green when young 6–17mm long, in whorls of 3 in middle and upper part of stem

**Additional info:** one of the few plants found at depths greater than 10 metres

ALTERNATIVE



**Canada Waterweed**

(*Elodea canadensis*)

**Garden use:** oxygenation, habitat enhancement for ponds and water gardens

**Growing conditions:** submerged or above surface, aquatic found in lakes, ponds, marshes, streams and rivers, sometimes on peat in fens; muddy substrate; prefers non-acidic conditions

**Size and shape:** stems thick, soft, erect, 10-50 cm tall, from spongy roots

**Flower and fruit:** Flower: very small, lacking sepals and petals in axils of upper leaves, rare and occur in the summer; Fruit: nutlet, ellipsoidal, 1.7–2.5mm long occurring mid-to late summer.

**Leaves:** when breaking water surface, 1-2 cm long thick, firm and spiky whorls of 6-12; when submerged, 1-3 cm long thin and weakly attached, dropping when removed from water

**Additional info:** marsh birds occasionally feed on the leaves and stems of common mare's tail; *Hippuris* means "horse's tail"

ALTERNATIVE



**Common Mare's Tail**

(*Hippuris vulgaris*)

# Aquatics

Hydrilla, also called water thyme, water weed, and Florida elodea is native to Asia and can be found in rivers, lakes, ponds, streams and wet ditches.

This invasive plant resembles Ontario's native waterweeds (*Elodea canadensis* and *E. nuttallii*) but can be distinguished by the presence of prickles on lower leaf surfaces.

Although there are no documented populations of hydrilla in Ontario, it presents a significant threat to aquatic ecosystems and navigation.

Hydrilla is another popular aquarium plant sold in pet stores throughout Ontario.



**Garden use:** great for softening underwater rockwork in decorative ponds; oxygenator

**Growing conditions:** submerged or above the surface; commonly found in ponds, rivers, lakes, and shorelines; prefers full sun

**Size and shape:** soft, thin, small sedge forms dense tufts, resembling red fescue; can also form large rooted mats or floating masses which when submerged, are often non-flowering

**Flower and fruit:** small, less than 5 mm, white/cream coloured flowers and small brown seeds bloom from May to September

**Leaves:** bright-green, grass-like stems reach 12-15 cm in height and are raised from a creeping rhizome

**Additional info:** great food source and habitat for waterfowl, mammals and amphibians; uses runners to spread and can grow exceptionally fast



**Garden use:** oxygenation, habitat enhancement for ponds and water gardens

**Growing conditions:** submerged perennial plant, common in still and fast-flowing waters; grows from underground runners

**Size and shape:** large, often forms tall underwater "meadows"; upper leaf parts are sometimes found floating across the water surface

**Flower and fruit:** produces small, white flowers on very long stalks and mature flowers can reach the surface of the water; fruit is a banana-like capsule having many tiny seeds

**Leaves:** 2.5 cm wide and can be several metres long; definite raised veins with some cross veins; rounded tips

**Additional info:** consumed by various animals and provides habitat for many species; can assist with stabilizing sediment and shorelines and improving water quality

ALTERNATIVE



G. Fleming

### Tape grass

(*Vallisneria americana*)

**Garden use:** ornamental in ponds and water gardens; great for shoreline enhancement

**Growing conditions:** prefers shallow water or very wet soil along muddy shores of lakes, and marshes; grows best in full sun

**Size and shape:** attains heights of 30-120 cm above water; emergent leaves are arrowhead shaped

**Flower and fruit:** three-petaled white flowers with yellow centre are found in whorls of three and bloom from July to September; leaves and flowers are found on separate stalks; fruit is a head of beaked seeds, dark brown in colour

**Leaves:** most noted for its arrowhead-shaped leaves, they can be quite variable in size; emergent leaves grow up to 30 cm and submerged leaves are much smaller and narrower

**Additional info:** sometimes known as duck potato, referring to its enlarged, rounded tubers that form at the end of the plants runners, they float to the surface when dislodged and can be boiled or baked and eaten like a potato; great food source for wildlife and helps stabilize shorelines

ALTERNATIVE



K. Chayka

### Broad-leaved Arrowhead

(*Sagittaria latifolia*)



# Aquatics

Yellow iris is native to Eurasia but can now be found throughout southern Ontario.

Occurring in shallow water along streams, rivers, ponds and lakes, it was likely introduced as an ornamental garden plant in ponds and outdoor water gardens.

This riparian perennial has erect leaves and brightly coloured showy flowers.

Once established, yellow iris can form a dense stand which displaces native shoreline vegetation and converts wet habitat to drier environments. Plant sap may cause skin blistering.



**Garden use:** ornamental in ponds and water gardens, used for shoreline enhancement

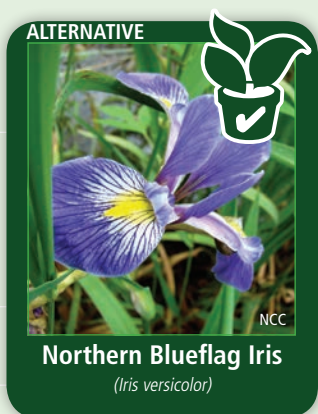
**Growing conditions:** along shores and in marshes, swamps, wet meadows and occasionally fens; in water up to 2 metres deep

**Size and shape:** stems 20-80 cm tall, growing in small colonies

**Flower and fruit:** showy, blue-purple flowers with yellowish veins separated into 3 petals; fruit capsules 2-3 cm long with flat seeds stacked inside, turning brown in autumn

**Leaves:** elongated, with parallel veins, up to 3 cm wide

**Additional info:** root stocks are poisonous; flowers are pollinated by bees; muskrats, beavers and birds feed on flower nectar





**Garden use:** ornamental in ponds and water gardens, used for shoreline enhancement

**Growing conditions:** shallow water (rarely more than 1 metre deep) along muddy or sandy shores of lakes, ponds, marshes, rivers and streams

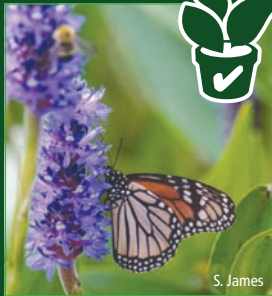
**Size and shape:** stems erect, stout, 30-60 cm tall growing from thick spreading root system often forming dense colonies in still waters

**Flower and fruit:** flowers violet-blue with 2 yellow dots on upper lip, funnel-like, about 8 mm long; 1-seeded bladder-like fruit with 1 seed

**Leaves:** lance to egg shaped, heart shaped at base, 5-25 cm long, 2-5 cm wide

**Additional info:** young stems and leaves of pickerelweed can be eaten in salads or boiled and served with butter; seeds can also be eaten raw; pollinated by bees and butterflies

ALTERNATIVE



S. James

### Pickerelweed

(*Pontederia cordata*)

**Garden use:** habitat and shoreline enhancement of ponds and water gardens

**Growing conditions:** Prefers medium to moist soils, found in moist fields and meadows; once established can be found in drier garden soils

**Size and shape:** ranging from 30-180 cm tall with square, grooved stem

**Flower and fruit:** Flowers: blue-violet flowers, blooming from summer to fall

**Leaves:** oppositely arranged, 5-15 cm long lance-shaped leaves, narrowed at base

**Additional info:** useful for shoreline restoration or in a rain garden; attractive to birds, butterflies and pollinating bees; young plants are often confused with mint

ALTERNATIVE



E. Snyder

### Blue Vervain

(*Verbena hastata*)

# Aquatics

Native to Eurasia, flowering rush can now be found in Ontario throughout Lakes Erie, St. Clair, and Ontario, Superior, as well as in the western St. Lawrence River, Severn River and Winnipeg River systems.

This perennial aquatic rush may grow submerged or emerge above the surface, with triangular leaves and multiple pink flowers on the end of a stalk.

Flowering rush can grow in lakes, rivers, marshes, ponds and wet ditches. It is used as an ornamental plant for ponds and outdoor water gardens, or intentionally planted along shorelines where it may escape and invade new areas.

Once established, flowering rush can displace native shoreline vegetation and hinder recreational use.



**Garden use:** native wildflower found in wet meadows and pond edges

**Growing conditions:** moist to wet soils; clay to loamy soils; full sun to partial shade

**Size and shape:** 0.5 to 1.5 metres in height

**Flower and fruit:** large flower heads comprised of many smaller pink to rose-purple flowers; blooming mid-summer through early fall

**Leaves:** narrow, lance-shaped leaves

**Additional info:** this species offers ample educational opportunities for youth, being one of the few host species for caterpillars of the native monarch butterfly



**Garden use:** native wildflower used in wet meadows and pond edges

**Growing conditions:** moist to wet soils; sun to partial shade

**Size and shape:** 30 to 90 cm in height

**Flower and fruit:** showy, white flowers resemble a turtles head, blooming through end of summer; seedcapsules remain on stalks throughout winter

**Leaves:** long, narrow leaves

**Additional info:** pollinator friendly plant; preferred host plant for the Baltimore butterfly; rarely grazed

ALTERNATIVE



**White Turtlehead**

*(Chelone glabra)*

**Garden use:** perennial water loving wildflower

**Growing conditions:** moist to wet soils

**Size and shape:** up to 0.5 metres tall

**Flower and fruit:** brilliant yellow flower bloom in early spring, April to June

**Leaves:** long stalked, toothed, kidney shaped basal leaves

**Additional info:** early blooming flowers are a sure sign of spring; attracts pollinators

ALTERNATIVE



**Marsh Marigold**

*(Caltha palustris)*

# Aquatics

Common Reed, often referred to as invasive *Phragmites*, is native to Eurasia and can now be found scattered throughout much of southern Ontario, and as far north as Georgian Bay, Lake Superior and northwestern Ontario.

This tall (2-6 metres), perennial grass grows in dense stands in shallow waters in wetlands, streambanks, lakeshores, wet fields and ditches. It was commonly used in site restoration and slope stabilization, and is sold as an ornamental plant.

Common Reed can spread very aggressively by both seed and underground shoots. Also, plant fragments carried by water or wind can regenerate easily, displacing native wetland vegetation and threatening habitat of rare species, species at risk and other wetland species.



**Garden use:** shoreline enhancement of ponds and water gardens

**Growing conditions:** found in marshes, ponds, and ditches and less frequently in fens and swamps

**Size and shape:** stems over 1 metre tall, spreading by roots

**Flower and fruit:** dense tiny flowers in spikes, with male spike at stem tip reaching 10-20 cm long, female spike immediately below; minute fruit with many brown hairs giving mature spikes their brown colour, produced in great quantity

**Leaves:** flat, 10-25 mm wide, spongy but very strong due to the framework of fibers

**Additional info:** common cattail can quickly colonize new and disturbed sites through the fluffy masses of seeds produced by each plant; good source of nesting materials for birds and food and habitat for wildlife; roots can be cooked and eaten like potatoes



**Garden use:** habitat and shoreline enhancement of ponds and water gardens

**Growing conditions:** Found in shallow marshes, beaver meadows and swamps; quickly colonizes disturbed soils, wet cutovers and ditches

**Size and shape:** up to 2 metres tall, prominently triangular stems with thick short roots

**Flower and fruit:** flowers in loose, 15-30 cm long clusters of many rounded clusters of spikelets; whitish 3-sided seeds, 0.7-1.0 mm long with 6 long white to rust-coloured bristles at the top

**Leaves:** ridged, very rough, 3-10 mm wide leaves over 30 cm long

**Additional info:** favored by geese during migration as the tubers are an important food source; seeds are eaten by a variety of waterfowl including black duck, mallard, and pintail

ALTERNATIVE



T. Howes

### River Bulrush

(*Scirpus fluviatilis*)

**Garden use:** habitat and shoreline enhancement of ponds and water gardens

**Growing conditions:** commonly found on sandy, wave-washed lakeshores and in sheltered bays and ditches

**Size and shape:** flowering stems 1-3 metres tall, olive green

**Flower and fruit:** Flower: tight clustered flowers in spikelets that appear to grow from side of stem with pale or whitish brown, orange-red dotted scales; 1.5-2.5 mm long fruits, brown to black with 0-6 barbed bristles as base, occur mid-summer

**Leaves:** barely visible bladeless sheaths at base of stem

**Additional info:** very similar to (*S. validus*), but softstem bulrush can be distinguished by its light blue-green stems, which are easily crushed between fingers

ALTERNATIVE



T. Howes

### Hardstem Bulrush

(*Scirpus acutus*)

# Species List

## Invasive Plants (by Common Name)

Amur honeysuckle ( <i>Lonicera maackii</i> ).....	21
Autumn olive ( <i>Eleagnus umbellata</i> ).....	19
Bells honeysuckle ( <i>Lonicera x bella</i> ) .....	21
Common barberry ( <i>Berberis vulgaris</i> ) .....	25
Common reed ( <i>Phragmites</i> ) ( <i>Phragmites australis</i> subsp. <i>australis</i> ) .....	43
English Ivy ( <i>Hedera helix</i> ) .....	7
European fly honeysuckle ( <i>Lonicera xylosteum</i> ) .....	21
European frog-bit ( <i>Hydrocharis morsus-ranae</i> ).....	31
Fanwort/Cabomba ( <i>Cabomba caroliniana</i> ) .....	35
Flowering rush ( <i>Butomus umbellatus</i> ) .....	41
Goutweed ( <i>Aegopodium podagraria</i> ) .....	7
Hydrilla ( <i>Hydrilla verticillata</i> ) .....	37
Japanese barberry ( <i>Berberis thunbergii</i> ) .....	25
Japanese honeysuckle vine ( <i>Lonicera japonica</i> ) .....	27
Miscanthus ( <i>Miscanthus sinensis</i> , <i>M. sacchiflorus</i> ) .....	13
Morrow's honeysuckle ( <i>Lonicera morrowii</i> ) .....	21
Multiflora rose ( <i>Rosa multiflora</i> ).....	23
Norway maple ( <i>Acer platanoides</i> ) .....	15
Oriental bittersweet ( <i>Celastrus orbiculatus</i> ) .....	29
Periwinkle ( <i>Vinca minor</i> ) .....	8
Russian olive ( <i>Eleagnus angustifolia</i> ).....	17
Tartarian honeysuckle ( <i>Lonicera tatarica</i> ) .....	21
Water soldier ( <i>Stratiotes aloides</i> ) .....	32
Yellow flag iris ( <i>Iris pseudacorus</i> ) .....	39
Yellow floating heart ( <i>Nymphoides peltata</i> ).....	31

## Grow Me Instead Alternatives (by Common Name)

Alternate leaf (pagoda) dogwood ( <i>Cornus alternifolia</i> ) .....	18
American wisteria ( <i>Wisteria frutescens</i> ).....	28
Bayberry ( <i>Morella</i> (syn. <i>Myrica</i> ) <i>pensylvanica</i> ).....	26
Bearberry ( <i>Arctostaphylos uva-ursi</i> ).....	12
Big blue stem ( <i>Andropogon gerardii</i> ) .....	13
Blue vervain ( <i>Verbena hastata</i> ) .....	40
Broad-leaved arrowhead ( <i>Sagittaria latifolia</i> ) .....	38
Bunchberry ( <i>Cornus canadensis</i> ) .....	10
Canada waterweed ( <i>Elodea canadensis</i> ) .....	36
Chokeberry ( <i>Aronia melanocarpa</i> ).....	26
Chokecherry ( <i>Prunus virginiana</i> ).....	18
Climbing hydrangea ( <i>Hydrangea anomala</i> subsp. <i>petiolaris</i> ).....	27
Common cattail ( <i>Typha latifolia</i> ) .....	43
Common elderberry ( <i>Sambucus canadensis</i> ).....	23
Common mare's tail ( <i>Hippurus vulgaris</i> ).....	36
Common ninebark ( <i>Physocarpus opulifolius</i> ) .....	19
Coontail ( <i>Ceratophyllum demersum</i> ).....	35



Dutchman's pipe or Pipevine ( <i>Aristolochia macrophyllia</i> ) .....	29
Dwarf hairgrass ( <i>Eleocharis acicularis</i> ).....	37
Eastern Redbud ( <i>Cercis canadensis</i> ).....	20
Flowering raspberry ( <i>Rubus odoratus</i> ) .....	24
Foamflower ( <i>Tiarella cordifolia</i> ).....	11
Fragrant (white) water lily ( <i>Nymphaea odorata</i> ).....	33
Freeman maple ( <i>Acer x freemanii</i> ).....	16
Goldflame honeysuckle ( <i>Lonicera x heckrottii</i> ).....	28
Gray dogwood ( <i>Cornus racemosa</i> ) .....	20
Hackberry ( <i>Celtis occidentalis</i> ) .....	15
Hardstem bulrush ( <i>Scirpus acutus</i> or <i>Schoenoplectus acutus</i> ).....	44
Indian grass ( <i>Sorghastrum nutans</i> ).....	14
Jackman clematis ( <i>Clematis x jackmanii</i> ) .....	30
Marsh marigold ( <i>Caltha palustris</i> ).....	42
Mayapple ( <i>Podophyllum peltatum</i> ).....	10
Nannyberry ( <i>Viburnum lentago</i> ) .....	21
Native Bush Honeysuckles ( <i>Diervilla lonicera</i> ) .....	22
Northern blueflag iris ( <i>Iris versicolor</i> ).....	39
Pickernelweed ( <i>Pontederia cordata</i> ) .....	40
Red-osier dogwood ( <i>Cornus Sericea</i> ) .....	22
River bulrush ( <i>Scirpus fluviatilis</i> ).....	44
Running euonymus ( <i>Euonymus obovatus</i> ) .....	11
Serviceberry spp. ( <i>Amelanchier arborea</i> , <i>A. laevis</i> , <i>A. Canadensis</i> )..	16
Shrubby cinquefoil ( <i>Dasiphora fruticosa</i> ) .....	25
Silver maple ( <i>Acer saccharinum</i> ) .....	16
Sugar maple ( <i>Acer saccharum</i> ).....	16
Swamp milkweed ( <i>Asclepias incarnata</i> ).....	41
Switchgrass ( <i>Panicum virgatum</i> ).....	14
Tape grass ( <i>Vallisneria americana</i> ).....	38
Virgin's bower ( <i>Clematis virginiana</i> ) .....	30
Water smartweed ( <i>Polygonum amphibium</i> ) .....	34
White turtlehead ( <i>Chelone glabra</i> ).....	42
Wild geranium ( <i>Geranium maculatum</i> ).....	12
Wild ginger ( <i>Asarum canadense</i> ) .....	9
Wild roses ( <i>Rosa acicularis</i> , <i>R. blanda</i> ).....	24
Wild strawberry ( <i>Fragaria virginiana</i> ).....	8
Wintergreen ( <i>Gaultheria procumbens</i> ) .....	9
Witch-hazel ( <i>Hamamelis virginiana</i> ) .....	17
Yellow pond lily ( <i>Nuphar variegatum</i> ).....	32

## Alert Species

The following species are additional horticulture plants to be on alert for in Ontario. Gardeners should be aware that these species can be invasive in natural areas:

- Bohemian knotweed (*Polygonum x bohemicum*)
- Common and Chinese privet (*Ligustrum vulgare*, *L. sinense*)
- Giant knotweed (*Polygonum sachalinense*)
- Japanese knotweed (*Polygonum cuspidatum*)
- Kudzu (*Pueraria montana*)

- Lily-of-the-valley (*Convallaria majalis*)
- Parrot feather (*Myriophyllum aquaticum*)
- Reed canarygrass (*Phalaris arundinacea* var. *picta*)
- Saltcedar/Tamarisk (*Tamarix ramosissima*)
- Sea buckthorn (*Hippophae rhamnoides*)
- Siberian peashrub (*Caragana arborescens*)
- Tree of heaven (*Ailanthus altissima*)
- Water chestnut (*Trapa natans*)
- Water hyacinth (*Eichhornia crassipes*)
- Water lettuce (*Pistia Stratiotes*)
- White mulberry (*Morus alba*)
- Winged euonymus/Burning bush (*Euonymus alatus*)

## Additional Resources

### Websites

#### Canadian Wildlife Federation

[www.wildaboutgardening.org](http://www.wildaboutgardening.org)

#### Credit Valley Conservation

[www.creditvalleyca.ca](http://www.creditvalleyca.ca)

#### Evergreen

[www.evergreen.ca](http://www.evergreen.ca)

#### Landscape Ontario

[www.landscapeontario.com](http://www.landscapeontario.com)

#### North American Native Plant Society

[www.nanps.org](http://www.nanps.org)



## **OFAH / OMNR Invading Species Awareness Program**

[www.invadingspecies.com](http://www.invadingspecies.com)

Invading Species Hotline: 1-800-563-7711

## **Ontario Invasive Plant Council**

[www.ontarioinvasiveplants.ca](http://www.ontarioinvasiveplants.ca)

## **Ontario Ministry of Natural Resources**

[www.ontario.ca/invasivespecies](http://www.ontario.ca/invasivespecies)

## **Society for Ecological Restoration**

[www.chapter.ser.org/ontario](http://www.chapter.ser.org/ontario)

## **Toronto and Region Conservation**

[www.trca.on.ca/yards](http://www.trca.on.ca/yards)

# **Publications**

## **Native Alternatives to Invasive Plants**

C. Colston Burrell et al., Brooklyn Botanic Garden, 2006

## **Selecting Plants for Pollinators Guide - Lake Erie Lowlands**

Available at [www.pollinator.org](http://www.pollinator.org)

## **The Landowners Guide to Controlling Invasive Woodland Plants**

D. Pridham and H. Anderson, Ontario Federation of Anglers and Hunters, 2009. Available at [www.invadingspecies.com](http://www.invadingspecies.com) or [www.ontarioinvasiveplants.ca](http://www.ontarioinvasiveplants.ca)











TD Friends of the Environment Foundation



Invasive Species Centre



ONTARIO'S INVADING SPECIES AWARENESS PROGRAM

TORONTO AND REGION Conservation for The Living City



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