

Pollinator Garden Planning: Downtown Containers

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Site Condition Notes:

Full sun to mostly shade, small to large containers, in hot urban settings. Preference given to ornamental, neat plants over "weedier" ones.

Planner questions:

• Does this seem a bit daunting? Pollinate Barrie will happily plan and plant your containers for you, by donation. Contact ashlev@pollinatebarrie.ca

Basic Principles of Pollinator Garden Planning

To maximize benefit to pollinators, you need:

- native perennial plants and trees. Relationships between pollinators and their plants are millions of years old and co-evolved tightly. Without specific plants, the majority of our pollinators cannot eat or reproduce. Effective pollinator gardens require native Ontario plant species. All plants used in this plan are native to Ontario and the Great Lakes region and co-evolved with the insects and pollinators that live here. The vast majority are perennials, to reduce soil disruption, carbon footprint, and personal expense of replanting every year.
- three seasons of blooms. Pollinators are emerging and provisioning their nests throughout the year, and need foraging opportunities—aka flowers—when they are active. Optimally, that means something native in bloom from May through until the snow flies.
- pollinator-responsible garden maintenance practices (covered later in this guide)

Special Considerations for Containers

To survive a winter, Ontario native plants develop deep roots. The depth of a plant's roots vs the depth of the planting container will determine which plants will survive winters and return the next spring. We want to set you up for success, and for this reason, we make the following suggestions:

- We recommend using pots no shallower than 10 inches. For container gardening, the deeper the container, the better, and the deeper the container, the more plant options you can use.
- Containers MUST have very good drainage. Containers and pots without drainage will drown the plants and crack the pots.
- Fill containers to the top with fluffy potting soil.

- From when the snow melts to when it frosts over again, plants will need water AT LEAST once every other day. The shallower the container, the more frequent the watering must be. Native plants in containers don't have the benefit of groundwater, so they must be babied a bit.
- Unless specified, only fertilize these plants once a year! They're used to poor soils and will be very confused otherwise.
- Containers do not strictly need winter coddling, but can benefit from a layer of fallen leaves in the fall. This
 helps insulate roots, and returns nutrients to the soil at a pace that the plants are used to. If located on a
 balcony, it can be helpful to move containers closer to the building to benefit from windbreaks over the colder
 seasons.

Recommended native plant retailers

Native plants are generally not offered at regular retail nurseries, but we have some reputable sources of sprouts nearby. We also regularly post sales and new plant sources on the Pollinate Barrie Facebook page. THESE SOURCES SELL OUT EVERY YEAR. Order early, order often!

- ➤ Onplants.ca
- -Open March to Sept/Oct
- -sell forbs, grasses, shrubs and baby trees, for relatively low prices, to make better roots and ensure better thriving -pre-ordered and delivered to doorstep
- -reliable native provenance and species identification, so we know that we're getting the correct plants from an ecologically responsible nursery propagation method instead of poaching from the wild
- -Limited quantities every year; worth pre-ordering as soon as possible
- > eARTh Revival, https://www.earthrevival.ca/shopnativeplants
- -Collingwood-based local native plant micronursery
- -high quality plants and reasonable prices
- -opens in late Spring, pickup only
- ➤ Living Green Barrie Tree and Shrub Sale (by preorder, pickup on May 28-29th)
- ➤ Hidden Habitat, https://hiddenhabitat.square.site/s/shop
- -Huntsville-based, with free pickup day in Barrie

Pollinate Barrie Winter-Sowing Program

-for a donation, we may be able to grow your plants for you over the winter. Contact <u>ashley@pollinatebarrie.ca</u> for more details.

A Note on Cultivars:

A Cultivar is a plant that has been specifically bred to be different than the wild species, usually to change colour, size or shape. Cultivars have variety names beyond the botanical binomial names (often in "quotations") to designate that they have been selectively bred. They are extremely common in mass-market nurseries (such as Garden Gallery).

Pollinate Barrie does not endorse the use of cultivars, because in many cases they have been shown to be less beneficial to the ecosystem than the straight species our pollinators co-evolved with. For this reason, we include the botanical binomial names of all plants we suggest, to assist you in finding the real deal.

However, cultivars of native species can be more beneficial to our pollinators than exotic species, if straight species are not available.

The **least detrimental cultivars** are dwarf varieties, or varieties with slight colour changes to blooms. If a cultivar must be used, these are better choices.

The **most detrimental cultivars** are varieties with double blooms, or different-coloured foliage. These are frequently inedible to pollinators entirely, and many can change the genetics of the related native species around them to make them inedible too. Please avoid them entirely.

Recommended Species: Full Sun

- ➤ Onplants.ca ➤ eARTh Revival ➤ Hidden Habitat ➤ Living Green Barrie Tree and Shrub Sale

Shallow Container (10inch depth +)

▲ ^ Prairie smoke (geum triflorum) ➤ ➤



- -~1ft tall
- -very early bloomers, lovely ferny foliage
- -supports early emergent bees
- -seedheads turn into wispy tufts and persist into the summer
- -foliage turns red in the fall
- -very good in drought and poor soil, salt tolerant

▲Pussytoes (antennaria neglecta)➤



- -<1ft tall in flower, only a few inches of foliage
- -blooms in early to mid spring
- -hosts American Lady butterfly, painted lady butterfly, and several moths, provides early season pollen for bees
- -flowers look like cats' paws
- -spreads by seed and runner, but easy to pull where it doesn't belong

Longleaf bluets (Houstonia longifolia)



- -~1ft tall
- -dainty white flowers
- -drought tolerant
- -beneficial to a wide variety of bees large and small
- -good in poor soil
- -salt tolerant

🔺 🗥 Wild Strawberry (Fragaria Virginiana) 🥕 🥕



- -<1ft tall, spreads by trailing runners</p>
- -blooms in spring through summer, fruits midsummer
- -hosts silver bordered fritliary butterfly, grey hairstreak butterfly, a strawberry pollen specialist bee, the interoceanic ear moth, miranda moth, inattentive dart moth, soothsayer moth, darker-spotted straw moth, lesser yellow underwing moth, purple arches moth, clandestine dart moth, Himmelman's plume moth, strawberry leafroller moth, and others, and I swear I didnt make any of these up.
- -good in poor soil, an enthusiastic spreader

▲ A Hoary beardtongue (Penstemon hirsutus) ➤ ➤



- -2-3ft tall
- -blooms from mid spring to early summer, charming seed pods persist through the winter
- -hosts baltimore checkerspot butterfly, a specialist bee, and several moths. Feeds hummingbirds, butterflies and bumblebees.
- -salt and drought tolerant



- -<1ft tall
- -blooms from mid June through the summer, a good crawling groundcover with a lovely minty smell
- -provides forage for long-tongued bees, butterflies and hummingbirds
- -a threatened species

▲ Harebell (campanula rotundifolia) ➤ ➤ ➤



- -<1ft tall
- -dainty, long-blooming blue-purple flowers, minimal grasslike foliage
- -good for small native bees
- -blooms from early summer clear through until fall
- -salt and drought tolerant

▲ Lanceleaf Coreopsis (coreopsis lanceolata) >>>



- -2-3ft tall
- -long, long blooming yellow flowers
- -essential food for native specialist bees and several moths
- -salt tolerant, drought-tolerant
- -benefits from close planting with grasses, to prevent flopping

▲ ▲ Silverweed Cinquefoil (Argentina Anserina)



- -<1ft tall
- -flowers yellow from mid spring through until the fall
- -supports several specialist bee species and all generalist pollen foragers
- -interesting fernlike foliage and good creeping habit; excellent groundcover

▲ ^ Narrow-leaved Vervain (Verbena simplex) ➤



- -1-2ft tall
- -blooms blue from midsummer through to late summer
- -hosts Virginian tiger moth, verbena bud moth, common looper, bilobed looper, spotted phosphila moth, oblique banded leafroller moth, supplies forage for bees -drought and salt tolerant

△ Rock Harlequin (Corydalis sempervirens)



- -RESEEDING BIENNIAL; spends the first year as a basal rosette of foliage, grows tall and blooms prolifically second year, and then dies. Reseeds into any bare soil to sustain the patch.
- -1-2ft tall, interesting silvery green foliage
- -charming pink and yellow flowers bloom from early summer until it snows
- -good forage for small solitary bees

▲Prairie Sundrops (Oenothera pilosella)



- -1-3ft tall
- -short-lived perennial and a great reseeder
- -blooms from early summer through the end of summer; fall foliage is bright red
- -hosts several species of specialist bees who solely feed on oenothera genus flowers. A favourite of green sweat bees.

▲Nodding Onion (Allium cernuum) ➤ ➤ ➤



- -~1ft tall
- -blooms pink nodding flowers in midsummer
- -hosts Hairstreak butterfly caterpillars and supports several genuses of native bees
- -may smell lightly of onion; edible to humans

△Cylindrical blazing star (Liatris cylindracea)



- -1-2ft tall
- -blooms from late summer through fall
- -hosts several moths and supports bees and butterflies in late season; seeds will feed birds over winter
- -vibrant pink flowers, short and compact
- -grows from corms
- -poor soil, salt and drought tolerant

▲ Upland goldenrod (solidago ptarmicoides) ➤



- -2-3ft tall
- -blooms white from late summer through fall
- -supports hundreds of different kinds of caterpillars, dozens and dozens of specialist bees, migrating butterflies including Monarchs; an essential food for queen bumblebees before hibernation. Goldenrods are so important!
- -drought, salt and poor soil tolerant; will grow in gravel
- -does not cause allergies! The pollen is too heavy to be carried on the air; autumn allergies come from ragweed, grasses and other wind-pollinated plants

▲Grey goldenrod (solidago nemoralis) ➤



- -1-2ft tall
- -blooms from the beginning of fall until the snow flies
- -supports hundreds of different kinds of caterpillars, dozens and dozens of specialist bees, migrating butterflies including Monarchs; an essential food for queen bumblebees before hibernation. Goldenrods are so important!
- -drought, salt and poor soil tolerant; will grow in gravel
- -does not cause allergies! The pollen is too heavy to be carried on the air; autumn allergies come from ragweed, grasses and other wind-pollinated plants

Sky blue aster (symphyotrichum oolentangiense)



- -2-3ft tall
- -blooms from very late summer until the end of fall
- -hosts the silvery checkerspot butterfly, pearl crescent butterfly, northern crescent butterfly, several dozen moths, several dozen specialist bees, and generalist bees and butterflies getting ready for hibernation or migration
- -salt, poor soil, drought tolerant

Medium pots (12 inch minimum depth, 12inch minimum width)

▲Pasque Flower (Anemone patens)



- -<1ft tall
- -blooms purple in early spring, through til summer
- -interesting hairy foliage
- -good forage for early bees

Heartleaf Golden Alexander (zizia aptera)



- -2-3ft tall
- -blooms yellow in the spring
- -hosts Black Swallowtail butterflies and directly supports early native bees and butterflies
- -airy yellow flowers and heart-shaped lush foliage; prone to reflowering in the fall

▲Hoary vervain (Verbena stricta) ➤ ➤



- -2-4ft tall
- -blooms through summer
- -drought, salt and poor soil tolerant
- -larval host for Virginian tiger moth and many others, flowers feed butterflies and bees
- -good architectural plant, tends to stand tall

▲ Pearly everlasting (Anaphalis margaritacea) ➤ ➤ ➤



- -1-3ft tall
- -white blooms from mid spring through until mid fall
- -hosts American Lady Butterfly, Painted Lady butterfly, and several moths. Foraged by small bees.
- -fluffy seedheads sometimes used as bird nesting material if still left over by springtime

△Blue-Eyed Grass (Sisyrinchium angustifolium)



- -~6-10inches tall
- -blooms blue with yellow centres from June to July; flowers open in the morning and close by midday, like they're "winking"
- -helpful forage for small solitary bees
- -actually a tiny iris

Cutleaf Anemone (Anemone Multifida)



- -1-2ft tall in flower (foliage shorter)
- -blooms white to pink in midsummer
- -pollen forage for bees
- Foliage is attractively toothed

▲ ^ Foxglove beardtongue (Penstemon digitalis) ➤ ➤ ➤



- -3-4ft tall
- -white tubular blooms from mid spring into early summer
- -hosts Baltimore Checkerspot Butterfly, specialist bees and several moth species, beloved by bumblebees and hummingbirds.
- -stem-nesting bees can nest in the floral stems
- -winter interest seed heads

▲ Black eyed susan (rudbeckia hirta) ➤ ➤ ➤



- -1-3ft tall
- -biennial: plant makes a basal rosette in the first year, flowering and seeding the second year, then dies. Will therefore travel through the garden as seeds are dispersed.
- -hosts silvery checkerspot butterfly, two dozen moths, and a dozen specialist bees. Feeds bees and butterflies.
- -salt and drought tolerant

▲Butterflyweed (asclepias tuberosa) ➤ ➤ ➤



- -2-3ft tall
- -hosts the Monarch butterfly, milkweed tussock moth, milkweed beetle, and feeds bees and butterflies
- -blooms from midsummer through until early fall if happy
- -drought, salt and poor soil tolerant
- -gorgeous shock of orange and charming fluffy seed heads through fall

Whorled Milkweed (Asclepias verticillata)



- -1-3ft tall
- -blooms greenish white on single stems in midsummer
- -hosts monarch butterfly, milkweed tussock moth, milkweed beetle, and feeds bees and butterflies
- -drought, salt and poor soil tolerant

▲Swamp Milkweed (Asclepias incarnata) ➤ ➤ ➤



- -3-5ft tal
- -blooms rosy pink in midsummer, charming fluffy seed heads in the fall
 - -hosts the monarch butterfly, tussock moth, milkweed beetle, and feeds bees and butterflies
 - -flood tolerant, good for rain gardens
 - -needs frequent watering if not in wet conditions

▲Dotted Mint (Monarda Punctata) ➤ ➤ ➤



- -1-3ft tall
- -blooms in midsummer like something out of Dr Seuss
- -hosts raspberry pyrausta butterfly, wavy lined emerald moth, beloved by useful predatory mud dauber wasps (nonaggressive) and bumblebees
- -edible minty leaves
- -short lived perennial but good at reseeding

▲ Pale Purple Coneflower (Echinacea pallida) >>>



- -2-3ft tall
- -blooms pale mauve midsummer, seed heads persist through the winter
- -hosts silvery checkerspot butterfly, feeds generalist bees and butterflies, seeds feed birds, standing stems provide nesting habitat for solitary bee larva
- -drought tolerant but blooms better when regularly rained on

▲Showy goldenrod (Solidago speciosa) ➤



- -1-5ft tall but amenable to pruning in midsummer
- -blooms rich yellow in late summer to fall
- -solidago genus hosts dozens of specialist bees, ruby tiger moth, blackberry looper, common pug moth, false crocus geometer moth, brown hooded owlet moth, and over 300 others. Provides highest-quality pollen and nectar for migrating monarchs and hibernating bees, without which they would die.
- -DOES NOT INDUCE ALLERGIES. The pollen is too heavy to be wind-carried, hence the bees. Ragweed is the reason people are sneezing, not goldenrods.

▲ Sky blue aster (Symphyotrichum oolentangiense) ➤



- -2-3ft tall
- -blooms pale blue from late summer through the fall
- -hosts a dozen specialist bees, silvery checkerspot butterfly, pearl crescent, northern crescent, and tawny crescent butterflies, pale-banded dart, raspberry looper moth, white-dotted groundling moth and dozens of others; provides highest-quality nectar and pollen for migrating monarchs and hibernating bees
- -drought tolerant, tolerant of pruning at mid spring or early summer

▲ Heath aster (Symphyotrichum ericoides)



- -1-4ft tall
- -blooms white in late summer through fall
- -hosts a dozen specialist bees, silvery checkerspot butterfly, pearl crescent, northern crescent, and tawny crescent butterflies, pale-banded dart, raspberry looper moth, white-dotted groundling moth and dozens of others; provides highest-quality nectar and pollen for migrating monarchs and hibernating bees
- -drought tolerant, tolerant of pruning at mid spring or early summer

▲Anise hyssop (Agastache foeniculum) ➤



- -2-5ft tall
- -blooms lavender in midsummer to early fall
- -hosts a few species of dagger moth and beloved by bumblebees and smaller solitary bees. Stems are used for nesting for bee larva.
- -edible leaves and flowers, a lovely anise scent

▲ Aromatic aster (Symphyotrichum oblongifolium)



- -1-2ft tall
- -blooms lavender in late summer to fall
- -hosts a dozen specialist bees, silvery checkerspot butterfly, pearl crescent, northern crescent, and tawny crescent butterflies, pale-banded dart, raspberry looper moth, white-dotted groundling moth and dozens of others; provides highest-quality nectar and pollen for migrating monarchs and hibernating bees
- -drought tolerant, salt tolerant

Eastern Prickly Pear Cactus (Opuntia humifusa)



- -1-3ft tall, requires full, hot sun
- -blooms lush yellow blossoms in late summer
- -blossoms are beneficial for bees; fruits and pads are edible (and delicious)
- -needs sandy soil and way fewer waterings than other forbs
- -absolutely winter-hardy. Shrivels up over the winter, and rehydrates itself and gets perky again every spring. Prefers to sprawl rather than tower.
- -extremely prickly! Use heavy gloves and caution, and keep away from walking paths

△Blue grama grass (Bouteoula gracilis)



- -<1ft tall
- -blooms interesting canted seed heads in late summer
- -hosts several skippers and feeds birds in winter; birds use it for nesting material
- -good for filling space in planters, borders
- -salt tolerant, drought tolerant once established

▲Prairie dropseed grass (Sporobolus heterolepis) ➤ ➤



- -2ft tall in flower, shorter before
- -feeds birds in fall and winter, provides cover for
- -interplanting with native bunchgrasses reduces the need for weeding and watering, and improves soil health and drainage.

Large pots (min 2ft depth x2ft wide)

▲New Jersey Tea (Ceanothus americanus) ➤ ➤



- -2-4ft tall
- -blooms from early summer through until midsummer
- -hosts summer azure butterfly, brown elfin butterfly, mottled duskywing butterfly (endangered) and several moths, feeds butterflies and bees including several specialist bees
- -fragrant flowers and edible leaves that make good tea
- -poor soil, salt and drought tolerant

▲ ▲ Snowberry shrub (Symphoricarpos alba) ➤ ➤

- -2-5ft tall (shorter in containers)
- -blooms pinkish white in June, forms large white fruits
- -hosts snowberry clearwing moth, diervilla clearwing moth, laurel sphinx moth, harris' three-spot moth and regal moth; favoured by hummingbirds, beneficial nectar source for bees and butterflies. Birds eat the berries.
- -Good winter interest
- -tolerant of shade, drought, moisture. Can sucker vigorously.

▲Northern Bush Honeysuckle (Diervilla Ionicera) ➤



- -2-4ft tall
- -flowers yellow tubular blooms in early summer, decent fall colour
- -hosts snowberry clearwing moth, diervilla clearwing moth, laurel sphinx moth, harris' three-spot moth and regal moth; favoured by hummingbirds, beneficial nectar source for bees and butterflies
- -shade, salt, drought and poor soil tolerant, good for slope stabilization
- -can be a vigorous spreader

🛕 Dense Blazing Star (Liatris spicata) 🗲 🥕



- -3-5ft tall in flower
- -flowers in towering magenta spikes in midsummer through late summer
- -preferred high-quality forage for butterflies, bumblebees, and many other pollinators; seeds feed birds through the winter
- -generally stays upright

▲Switchgrass (Panicum virgatum) ➤ ➤



- -3-5ft tall (shorter in containers)
- -flowers in autumn then turns a lovely golden colour
- -hosts many skipper species, feeds birds in fall and winter; birds use it as nesting material -beautiful fall colour, sways in the wind

▲ Little bluestem (schizachyrium scoparium) ➤ ➤ ➤



- -2-3ft tall; upright form
- -clumping, seeds beautifully in fall and feeds birds
- -hosts common wood nymph butterfly, dusted skipper, ottoe skipper, cobweb skipper, Indian skipper, crossline skipper, Leonard's skipper; birds use old stalks to build nests -salt tolerant, supremely drought tolerant, poor soil tolerant

▲Sideoats grama (Bouteola curtipendula) ➤



- -2-3ft tall, lightly arching form
- -clumping, beautiful red flowers along the sides of the stalks in summer; seeds feed birds
- -hosts Dakota skipper, Ottoe skipper, and several specialist leafhoppers
- -salt tolerant, drought tolerant, poor soil tolerant

▲Canada wild rye (elymus canadensis) ➤



- -3-5ft tall, beautifully arching flowerheads in midsummer
- -hosts several moths and beetles that feed birds; seedheads feed birds in winter
- -bunchgrass that grows in the cool season
- -salt tolerant, drought tolerant, poor soil tolerant
- -can be a bit of a spreader, but divides nicely

Recommended Species: Part Shade

- ➤ Onplants.ca ➤ eARTh Revival ➤ Hidden Habitat ➤ Living Green Barrie Tree and Shrub Sale

Shallow Container (10inch depth +)

▲ ^ Woodland Strawberry (Fragaria vesca) ➤

- -<1ft tall, sun to shade
- -blooms spring through summer, fruits midsummer
- -blooms feed several specialist bees, generalist bees, and the foliage hosts several moths -dry shade tolerant, lovely spiller

▲ ^ Eastern Red Columbine (aquilegia canadensis)➤ ➤ ➤

- -1-2ft tall, sun or shade
- -blooms late spring through the summer
- -blooms popular with hummingbirds, long-tongued bees, butterflies; plants host columbine duskywing butterfly
- -foliage is deeply lobed and lovely
- -drought, poor soil and salt tolerant

▲Wild Geranium (Geranium maculatum) ➤ ➤ ➤



- -1-3ft tall
- -purple blooms in mid-spring to summer
- -hosts specialist bees, several beetles, several looper moths, and several dozen other small moths
- -good forage for bees and butterflies

▲Foamflower (Tiarella Cordifolia)➤>



- -<1ft tal
- -blooms airy white spikes in spring and early summer
- -feeds small solitary bees
- -pleasant serrated foliage slowly covers the ground
- -needs at least part shade and average moisture, loamy soil



- -2-3ft tall
- -blooms from mid spring to early summer, charming seed pods persist through the winter
- -hosts baltimore checkerspot butterfly, a specialist bee, and several moths. Feeds hummingbirds, butterflies and bumblebees.
- -salt and drought tolerant

▲Prairie Sundrops (Oenothera pilosella) ➤



- -1-3ft tall
- -short-lived perennial and a great reseeder
- -blooms from early summer through the end of summer; fall foliage is bright red
- -hosts several species of specialist bees who solely feed on oenothera genus flowers. A favourite of green sweat bees.

▲ Lanceleaf Coreopsis (coreopsis lanceolata) >>>



- -2-3ft tall
- -long, long blooming yellow flowers
- -essential food for native specialist bees and several moths
- -salt tolerant, drought-tolerant
- -benefits from close planting with grasses, to prevent flopping

▲ Black eyed susan (rudbeckia hirta) ➤ ➤ ➤



- -1-3ft tall
- -biennial: plant makes a basal rosette in the first year, flowering and seeding the second year, then dies. Will therefore travel through the garden as seeds are dispersed.
- -hosts silvery checkerspot butterfly, two dozen moths, and a dozen specialist bees. Feeds bees and butterflies.
- -salt and drought tolerant

△ ARock Harlequin (Corydalis sempervirens)



- -RESEEDING BIENNIAL; spends the first year as a basal rosette of foliage, grows tall and blooms prolifically second year, and then dies. Reseeds into any bare soil to sustain the patch.
- -1-2ft tall, interesting silvery green foliage
- -charming pink and yellow flowers bloom from early summer until it snows -good forage for small solitary bees

▲Grey goldenrod (solidago nemoralis) ➤



- -1-2ft tall
- -blooms from the beginning of fall until the snow flies
- -supports hundreds of different kinds of caterpillars, dozens and dozens of specialist bees, migrating butterflies including Monarchs; an essential food for queen bumblebees before hibernation. Goldenrods are so important!
- -drought, salt and poor soil tolerant; will grow in gravel
- -does not cause allergies! The pollen is too heavy to be carried on the air; autumn allergies come from ragweed, grasses and other wind-pollinated plants



- -3-4ft tall
- -white tubular blooms from mid spring into early summer
- -hosts Baltimore Checkerspot Butterfly, specialist bees and several moth species, beloved by bumblebees and hummingbirds.
- -stem-nesting bees can nest in the floral stems
- -winter interest seed heads

▲Swamp Milkweed (Asclepias incarnata)➤➤➤



- -3-5ft tall
- -blooms rosy pink in midsummer, charming fluffy seed heads in the fall
- -hosts the monarch butterfly, tussock moth, milkweed beetle, and feeds bees and butterflies
- -flood tolerant, good for rain gardens
- -needs frequent watering if not in wet conditions

▲Blue eyed grass (Sysrichryum angustifolium)



- -<1ft tall
- -blooms blue in the late spring and early summer; flowers open for several hours, then close again, every day
- -feeds small stingless bees and syrphid hoverflies
- -grasslike foliage
- -drought tolerant

▲Pearly everlasting (Anaphalis margaritacea) ➤ ➤ ➤



- -1-3ft tall
- -white blooms from mid spring through until mid fall
- -hosts American Lady Butterfly, Painted Lady butterfly, and several moths. Foraged by small bees.
- -fluffy seedheads sometimes used as bird nesting material if still left over by springtime

▲Pale Purple Coneflower (Echinacea pallida) >>



- -2-3ft tall
- -blooms pale mauve midsummer, seed heads persist through the winter
- -hosts silvery checkerspot butterfly, feeds generalist bees and butterflies, seeds feed birds, standing stems provide nesting habitat for solitary bee larva
- -drought tolerant but blooms better when regularly rained on

▲Alumroot (Heuschera richardsonii) ➤

- -inconspicuous flowers on spikes in summer; foliage is lush and broad
- -provides nectar and pollen for bees and butterflies
- -prefers more shade than sun
- -drought tolerant once established

▲Geranium maculatum/ Wild geranium ➤ ➤ ➤



- -1-2ft tall
- -blooms purple for a few weeks in summer
- -hosts the white-marked tussock moth and some other moths; feeds bees of all kinds
- -foliage is deeply cut and elegant
- -shade and drought tolerant

Anemone canadensis/ Canada anemone >>



- -1-2ft tall
- -blooms white in early summer, charming spiky seedheads in late summer
- -hosts several moths and feeds all bees
- -shade tolerant and a rigorous spreader

▲▲Large leaf aster (Symphyotrichum macrophylla)➤➤>



- -1-3ft tall (generally under 2ft)
- -blooms pale lavender in late summer and early fall
- -hosts pearl crescent butterfly, silvery checkerspot butterfly, several moths, and provides high-quality nectar and pollen to migrating butterflies and hibernating bumblebee queens.
- -sharming heart-shaped leaves for filler
- -requires more shade than sun.

▲ Aromatic aster (Symphyotrichum oblongifolium)



- -1-2ft tall
- -blooms lavender in late summer to fall
- -hosts a dozen specialist bees, silvery checkerspot butterfly, pearl crescent, northern crescent, and tawny crescent butterflies, pale-banded dart, raspberry looper moth, white-dotted groundling moth and dozens of others; provides highest-quality nectar and pollen for migrating monarchs and hibernating bees
- -drought tolerant, salt tolerant

▲Zigzag goldenrod (Solidago flexicaulis) ➤ ➤



-1-3ft tall

- -blooms dainty yellow flowers on spikes from late summer through fall
- -supports hundreds of different kinds of caterpillars, dozens and dozens of specialist bees, migrating butterflies including Monarchs; an essential food for queen bumblebees before hibernation. Goldenrods are so important!
- -drought tolerant, shade tolerant
- -does not cause allergies! The pollen is too heavy to be carried on the air; autumn allergies come from ragweed, grasses and other wind-pollinated plants

Marginal wood fern (Dryopteris marginalis)➤



- -1-3ft tall, normally around 1.5 ft
- -provides cover for birds, toads, etc
- -evergreen fern that tolerates drier conditions than most but is still sensitive to heat.
- -reproduces by rusty spores on the underside of female leaves
- -requires shade

▲Northern Sea Oats (Chasmanthium latifolium)



- -2-4ft tall
- -gorgeously arching fronds of oatlike seed heads bloom in late summer; foliage is lush and lovely and turns a nice golden in the fall
- -hosts several varieties of skipper, seeds feed birds in winter
- -shade tolerant, cool-season bunchgrass that will spread by rhizome and seed
- -great cut flower filler

▲Bottlebrush grass (Elymus hystrix)>>>



- -2-4ft tall
- -blooms spiky bottlebrush seed heads in late spring to midsummer
- -hosts Northern Pearly Eyed butterfly
- -gorgeous, reserved, architectural cool-season bunchgrass

▲New Jersey Tea (Ceanothus americanus)>>



- -2-4ft tall
- -blooms from early summer through until midsummer
- -hosts summer azure butterfly, brown elfin butterfly, mottled duskywing butterfly (endangered) and several moths, feeds butterflies and bees including several specialist bees
- -fragrant flowers and edible leaves that make good tea
- -poor soil, salt and drought tolerant

▲Snowberry shrub (Symphoricarpos alba)➤➤



- -2-5ft tall (shorter in containers)
- -blooms pinkish white in June, forms large white fruits
- -hosts snowberry clearwing moth, diervilla clearwing moth, laurel sphinx moth, harris' three-spot moth and regal moth; favoured by hummingbirds, beneficial nectar source for bees and butterflies. Birds eat the berries.
- -Good winter interest
- -tolerant of shade, drought, moisture. Can sucker vigorously.

Northern Bush Honeysuckle (Diervilla Ionicera) >



- -2-4ft tall
- -flowers yellow tubular blooms in early summer, decent fall colour
- -hosts snowberry clearwing moth, diervilla clearwing moth, laurel sphinx moth, harris' three-spot moth and regal moth; favoured by hummingbirds, beneficial nectar source for bees and butterflies
- -shade, salt, drought and poor soil tolerant, good for slope stabilization
- -can be a vigorous spreader

General Maintenance Notes

Taking care of a pollinator garden is different than taking care of a regular garden in several ways:

A pollinator garden is meant to

- house pollinators through all seasons
- feed pollinators and their young through all seasons
- allow pollinators to reproduce.

The best way to support these goals include:

- Never, ever clear leaves away from your pollinator garden. Fallen leaves shelter ground-nesting solitary bees, camouflage cocooning butterflies and moths, insulate the roots of plants so they can return the next year, and return nutrients to the soil.
- Do not "tidy up" or cut down stems in a pollinator garden. 25% of native bees nest in dead pithy stems from several years ago, this year's growth will soon cover the old stems and help them to stay upright instead of flopping. Fallen stems will decompose and re-enrich the soil. If you must cut stems, lay them gently by the base of the plants, so they might still be used.
- Let things be eaten by insects. Gardeners can feel like they need to protect their plants from being snacked on, but in a pollinator garden, they are there to be food. *One exception is from rabbits and deer: for young trees it can be helpful to use closed-topped cages of wide hardware cloth or small chicken wire for the first several years to prevent defoliation and bark damage, which can kill small trees. It still lets air, light, water and pollinators in, but it stops our furry friends from making them into a meal.
- Try your hardest not to walk in your pollinator garden. Put up a visible barrier around it to keep feet out, and set safety rules to prevent playing inside it. If you need to do weeding, need watering access, or need to change feeders or birdwatching materials, installing stepping stones when you plant the garden can make that safer for pollinators–70% of our native bees nest in small holes in the ground, and can easily be crushed by accident. That's no good!
- Don't be afraid of what comes to your garden. Well-planned pollinator gardens have been designed to feed
 and house pollinators effectively—which means they don't have to get aggressive trying to survive.
 Furthermore, the vast majority of our native bees are solitary, stingless, and docile. Even the wasps that
 come to your garden shouldn't bother you—they should be well-fed by three seasons of nectar and pollen that
 they evolved to eat. (Many of the scariest looking thread-waisted wasps don't even sting people—those big
 stingers are for the spiders and caterpillars that they feed to their eggs!)

Do:

promotes strong and deep root growth, which promotes drought tolerance in the future. After the first year, water it only during times of drought.
let snow cover your garden. It insulates the roots from the cold of winter and helps water it in the spring.
be patient. Native plants and trees can take several years to really establish, but once they do, they become a rewarding and thriving ecosystem. Remember: the first year they sleep, the second, they creep, the third year, they leap!
Observe and enjoy it! Your pollinator garden will be buzzing with activity, and you will be shocked at the diversity of colours, shapes and habits of the things pollinating your gardens! There are citizen science initiatives to help conservation (check out iNaturalist.ca) that consist of observing your gardens, and reporting what you see—you can even be doing active contributions to conservation!