



Early and Late Blooming Native Species for Woods Edge and Shaded Sites in Beltrami County

Notes from C. Peck, Master Gardener, 2020

EARLY BLOOMERS:

Dutchman's Breeches: (*Dicentra cucullaria*) 4-12" tall
Raceme of white-cream colored flowers that look like rows of old-fashioned britches of little Dutch boys. Foliage is delicate, fern-like. April-May emergence and blooms attract worker bumble bees who chew holes in the legs of the pantaloons to steal the nectar. Cuckoo bees also feed through the holes. Seeds are spread about by ants. Flowers are short-lived and the plants are ephemerals whose above-ground structures do not persist for long. Plants emanate from fleshy roots, preferring loamy, moist soils in part-sun locations.

This plant is not for beginners or people who don't keep track of plant locations. Easily forgotten and then hoed out or overgrown by other species.



Bloodroot: (*Sanguinaria canadensis*) 3-6" tall.

Single stalks of snowy-white, single, daisy-like flowers open on sunny days but close at night and on cloudy days, looking like pillars wrapped by the single leaf of each plant. A grouping of these flowers makes the wait for spring worthwhile. Although self-pollinating, cuckoo bees, bee flies, sweat bees, and carpenter bees check out the flowers for nectar, finding none. Mining Bees are the main pollinators although sweat bees return as the flowers decline to also gather pollen. Seed pods, gathered by ants, contain seeds with a fleshy substance attached. Ants consume that substance and discard the seeds. Seeds germinate, forming rhizomes that spread the species. Earliest blooming spring flowers (April-May), blue-green leaves will persist throughout the summer. It grows in part-sun to shady, sandy-loam soil and enjoys moderate to drier conditions.



This is a must plant that is easy to grow. Combine with large flowered bellwort and sessile-leaved bellwort for an effective early spring floral display and an interesting textural interest in a shady garden.

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Wild (low-bush) Blueberry: (*Vaccinium angustifolium*)

Low-growing shrubs that spread by rhizomes that can lie dormant for 100 years. Sporting blue-green leathery leaves that emerge with a pinkish tinge and turn bright red in autumn. Blooming early (May to June) with white, urn-shaped flowers that turn back on themselves like a floppy skirt. Two inches to 24 inches tall, shrubs grow in well-drained acid soils as well as peaty and rocky ones in part-shade, shade and sun. They are larval hosts to many moths but are pollinated by bumble bees who can fly in cold temperatures as well as by solitary bees. Small dark blue-black fruits result.

This is a plant that can be a lovely landscape species that provides color in spring, summer, and fall as well as tasty, nutritious fruit.



Wild Columbine: (*Aquilegia canadensis*)

Red and yellow pendulous flowers sport upward pointing reddish curved spurs look like a king's crown and downward pointing ovate petals with pointed tips surrounding a yellow corolla. Blooms emerging on the 12-36 inch tall, delicate-looking plants coincide with the arrival of ruby-throated hummingbirds who feed on the nectar in the red spurs and continue to the end of June. Bumble bees forage for nectar by pushing their fat little bodies into the spurs but endangered rusty patched bumble bees make holes in the spurs to feed on nectar. Queen bumblebees grab anthers to collect pollen; sweat bees also feed on both nectar and pollen. When cloudy or too cool for pollinators, plants will self-pollinate. Columbine sawfly larvae feed on leaves. Roots are fibrous and the plant spreads by numerous black, shiny seeds. Plants grow in a variety of soils in sunny to shady sites with sandy to loamy soils that range from evenly moist to dry.



Easy to grow, this plant provides a taller, see-through effect in a garden setting that doesn't overwhelm but offers lively entertainment as hummingbirds and bees make the flowers bounce.

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Large-flowered Bellwort: (*Uvularia grandiflora*)

Eight to 18-inch stems have light-green ovate leaves that pierce the stems. Single plants grow from rhizomes and seeds and soon form clumps but are not invasive. They grow in part-shade to shade in sandy to loamy soils and medium wet to dry soils. A striking plant in bloom and remains attractive all summer. Blooms emerge in April - May and attract bees and flies. Larger pollinators are their most effective pollinators as they climb into the blooms brushing against the anthers as they seek nectar. Primary pollinators are mining and sweat bees. Seeds are dispersed by ants, attracted to their fleshy coatings.

Easy to grow and consistently attractive throughout the season, it is a medium-sized plant that would be attractive next to bloodroots, sessile-leaf bellwort (a more delicate, smaller similar species), Canadian wild ginger, violets, or colorful domestic annuals.



Violets: (*Viola pubescens*, *Viola canadensis*)

Two spring flowers that thrive in northern Minnesota (part of 75 nationwide) are white canadensis and yellow pubescent, both stalked violets whose flowers are at the end of single stems instead of emanating from the base of the plants. Eight to 16 inches tall, violets begin bloom in May and can continue into summer. The yellow-flowered pubescent variety spreads by rhizomes and the white-flowered canadensis by above ground runners called stolons as well as by seeds. Flowers have 5 petals, are ¾ to 1 inch wide with 2 rounded top petals and 3 pointed bottom pointed petals, both graced with darker veins leading to the petal vortex. Short-tongued bees such as small carpenter and sweat bees enter both right-side up and upside down to acquire nectar and pollen.

Easy to grow, these flowers are favorites of children and cheerful welcomes to spring in gardens and lawns.



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Virginia Bluebells: (*Mertensia virginica*)

Bluebells emerge as dark maroon-purple, nearly invisible shoots when first coming out of the ground. The plant soon turns green and rapidly grows to 10 to 24 inches. Racemes of elongated, trumpet-like flowers start pink and open to sky blue. Lower leaves are larger than the alternately-arranged round, smooth stem leaves. They bloom in May and June and then this ephemeral plant turns yellow and dies to the ground. Later emerging taller plants will disguise the bluebell demise. The plants prefer moist soil but will tolerate drier conditions as the season progresses. Planting under deciduous trees allows them early sunlight and moisture but then they enjoy the shade. Plants spread by rhizomes and like to travel. They are especially attractive to hummingbirds.

Easy to grow and attractive, bluebells offer a bright blue color to echo the spring sky.



Virginia Waterleaf: (*Hydrophyllum virginianum*)

While not as showy as some flowers, this plant with its silver-spotted leaves in early spring attracts many pollinators. Leaves have 5-7 sharply toothed lobes that are 5-6 inches long. A May bloomer, it grows in part sun to shady locations in sandy soils that range from moist to dry. Flowers are round clusters of light-blue to white, bell-shapes with the pistil and stamens sticking out beyond the end of the bell. Spreading by underground rhizomes, large mats of the plant form. An ephemeral, the whole plant dies back by midsummer.

Bees, flies, and beetles feed on both nectar and pollen, pollinating these plants. Primary among them are the early feeders, bumble bees, green sweat bees, cuckoo bees. Mining bees, small carpenter bees, mason bees, syrphid flies, black weevils are others. Ant try to feed on the nectar but hairs on the stamens that make the flowers so charming limit their success.

Valuable species combined with Pennsylvania Sedge in dry sites and edges of woodlands.



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Red Baneberry: (*Actaea rubra*)

A tall plant, red baneberry, is an interesting background plant. Quite tall, 18-36 inches, it blooms in May/June, and thrives in mostly shade. Vase-like, the plant's multiple coarsely-toothed light-green leaves rest at the top. It needs a loamy soil that is moderately moist. Very fragrant flowers, although appearing as numerous white puffballs from a distance, drop their petals quickly. Temperature fluctuations can alter bloom times. Floral scent attracts mainly sweat bees and green sweat bees but they gather no nectar, only pollen. The flowers self-pollinate and the result is a cluster of bright red or white round fruits on red stems, each with a black spot. Called "doll's eyes," they are quite poisonous. Maturing in late August to early September, each berry contains 6 brown seeds.



This may not be a plant for homes with small children due to the attractive qualities of the fruit.

Round-Lobed Hepatica: (*Hepatica Americana*)

The jewel of the spring woodland, this diminutive (4-6 inches) plant's pink, white, lavender, to bright blue flowers almost jump up to greet you. Bronze, round-lobed leaves are barely visible in the forest floor debris. Blooming in April to May, they persist longer in cooler, rainier weather in part sun to full shade. Rich, loamy soil that ranges from moderately moist to dry. Old leaves die after bloom but are replaced by new green ones that turn bronze for winter. Nectarless flowers limit insect visitors but small carpenter and sweat bees collect the bright white or yellow pollen. Flowers do not need pollinators to produce seeds. Fibrous rooted plantlets grow from beaked seeds.



A very special reward in a miniature garden setting. Round-lobed Hepatica attracts the azure blue butterfly. Avoid planting in an area with abundant earthworms. Plants need leaf mulch to thrive. Earthworms consume leaf litter and whole plants.

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Wild Ginger: (*Asarum canadense*)

A great ground-cover plant in moist, shaded, leaf mold soil, it emerges appearing grey-green fuzz. Medium-green leaves and stems are covered with dense hairs and grow 6-12 inches tall. Brown to maroon, fat, little flowers with a turned-back three part skirts are at ground level. Smelling like rotten meat to attract flies and ground-dwelling beetles for pollination. Ants carry the seeds to their larders, expanding the plant's range. The rootstock exudes a strong, ginger-like odor but the plant is not the ginger used in cooking.

Great groundcover plant to use under more floriferous species, it becomes a dense area that excludes light and reduces weedy plants.



Rue Anemone: (*Thalictrum thalictroides*)

This delicate spring bloomer emerges in natural paths, in woodland lawns and flower beds unbidden. Pink or lavender to white sepals surround a green center with yellow pollen clinging to white anthers. Three part rounded leaves are medium green in this 3-8 inch plant. It requires part sun to full shade, sandy to loamy, medium to dry soil and grows from fibrous roots. It needs insects to pollinate the flowers; smaller species- sweat bees, large mining bees, small carpenter bees, cuckoo bees, and mason bees as well as syrphid flies and bee flies visit for nectar but gain more pollen. The larger mining bees are the better pollinators, transferring pollen to other flowers. A predator, crab spiders, await the bees, grabbing bees with their large forelegs and then biting a hole in the bee to throw up digestive fluids into its internal organs and muscles. They suck out the liquefied bee's innards.

Ubiquitous in the lawn and in gardens that are not chemically treated, it provides early fodder for small bees and flies. Delicate as they appear, they can become prolific, making a lawn appear to be a white-spotted tweed.



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Pennsylvania Sedge: (*Carex pensylvanica*)

A shade-loving grass-like plant that grows in clumps, this sedge is common in northern Minnesota woods. Its triangular leaves are soft and fine textured and have an arching habit. It can be used as a low care lawn substitute but with its height of up to 18 inches, it can serve as cover for migratory fowl like sandhill cranes and ducks; ducks will also use the leaves for nest construction. Grouse may use it as a dancing ground. Each plant will spread from 12-18 inches, creeping with its rhizomatous growth technique. It grows in moist to dry soil and enriches it to some degree. Light green in spring and summer, sandy-tan in autumn, this sedge blooms and fruits from April to June. This plant is also deer resistant.

Planting a sandy, shady area of a yard where grass growth is poor can result in an attractive textural spot that will require no fertilizer, watering once established, and only an annual mowing. Combine with Virginia waterleaf for edging a woodland.



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'Late Blooming' Native Species for Woods Edge and Shaded Sites

Zigzag Goldenrod: (*Solidago flexicaulis*)

Tall, showy zigzag goldenrod provides some of the latest floral color in the autumn part-shade to shady landscape areas. It is of great value to insects as a larval host plant as well as a source of nectar and pollen. Its fibrous roots spreads through rhizomes; ovate toothed leaves alternate on the tall stems. Small clusters of bright yellow ¼ inch flowers actually zig and zag up 1-3 tall erect stems of each plant.

It is a larval host of several moths which are preyed upon by tachinid flies whose larvae feed on the caterpillars. Sweat bees, yellow-faced bees head for the late available nectar but mining bees collect pollen for their nests. Bumble bees, especially the males, seek nectar but also are on the hunt for females for mating to become future queens. Other insect copulation takes place on these plants: mason wasp males dawdle in the flowers waiting for females who nest in hollow stems, wood cavities or abandoned nests. They then hunt for caterpillars they sting and carry back to the nests. Thread-waisted wasps, carrot wasps seek nectar; paper and yellow jacket wasps seek nectar but they also seek mates and chew on exposed wood to create material for nests. Syrphid flies visit goldenrod to predate aphids and mealy bugs but also feed on nectar and pollen.

Who knew there could be so much drama on these woodland edge flowers that are some of the last flowers we see in the fall. This is a most valuable and attractive species.



Bottle Gentian: (*Gentiana andrewsii*)

These flowers that look like buds that want to open, never will unless a bumble bee lands on top, pries open the tightly furled flower petals, crawls down in to gather pollen, turns around and flies to another flower to repeat the process and thus pollinate that flower. Nectar gathering is not the goal. Each beautiful flower can range in color from white to violet but is usually medium blue. They appear in August to September. The plant will tolerate part shade but prefers sun. Loamy soil that is quite moist is required and grows best along wetlands without competition from other plants.



This plant is challenging and not for amateurs. Finicky and rare, this perennial is a special reward species for special sites and determined gardeners.

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Calico, aka 'Side Flowering Aster':

(*Symphotrichum lateriflorum*)

White, sparsely petaled ray flowers are ½ inch across, with a creamy white to light yellow that turns purplish. They are arranged on one side of the stems on a 1-4 foot plant with narrow leaves. Blooming from August to October, you will find them upland dry or moist soil in woody thickets, flood plains, fields or clearing in sunny to part shade. Late feeding bees such as yellow-faced, sweat bees, cuckoo bees as well as the mining bee, a specialist of late summer goldenrods and asters. Bumble bees, with their ability to forage in cool weather will, of course, frequent these late bloomers.



Panicled Aster: (*Symphotrichum lanceolatum*)

One-half to ¾ inch, usually white, ray flowers top 1-5 foot plants that may tumble over due to the weight of the flowers. Plants grow in partial shade to sunny locations in moist soil along shores, woodland edges, meadows, fens, along railroads, in roadside ditches and bloom in July to October.



Purple-stemmed Aster: (*Symphotrichum puniceum*)

One to 1½ inch ray flowers with 30-60 petals, pale to very bright blue top 1-7 foot stems with bristly, long, narrow leaves. The plant grows in part shade to sunny bogs, along shores, woods edges, thickets, and wet meadows in moist soil. It blooms from August to October.

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Lindley's Aster: (*Symphotrichum ciliolatum*)

A shorter species at 1-3 feet, this aster has thin, heart-shaped leaves and 1 - ½ inch ray flowers with 12-25 pale blue petals and yellow disc centers. It grows in part shade to sunny areas in open woods, woodland edges, fields, and roadsides. Stems are green to reddish and smooth to sparsely hairy near the flowers. Common flower in roadside ditches.

Asters attract small bees, the carpenters, leafcutter, green sweat, cuckoo and long-horned but also welcome bumble bees to gather pollen as long as they can in the autumn. Asters are larval host plants for some moths and butterflies.



Large-Leaved Aster: (*Euribia macrophylla*)

Tall (12-48-inch) large leafed asters is meant for large part to mostly shady spaces in a variety of soils that range from moist to moderately dry. With its height and how it proliferates, it is not for small spaces but works for woodland edges or in ditches in mass plantings mixed with ferns as a textural backdrop. It blooms late, from July to mid-late September. Blooms are light purple to white ray flowers, small in comparison to the plant size and held at its top. Stan Tekiela in his book "Wildflowers of Minnesota," relates that only one in fifty plants sends up flower stalks. This late bloomer is a larval host for a number of butterflies and attracts bumble bees, yellow-faced bees, sweat bees, green sweet bees, mining bees and syrphid flies. Many of these pollinators can fly in cool weather and need late blooming flowers such as this.

Common in woodlands around Bemidji, but because of its low bloom potential and plant size, it may not be the best aster to choose for your planting.



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