

Mill Creek Watershed Wildflowers



**MY
WATERSHED**



**I WILL
PROTECT IT!**

Some wildflowers that might be found in the Mill Creek Watershed:

Wild Geranium	Butterweed	Mayapple
Dwarf Larkspur	Blue Phlox	False Rue Anemone
Trillium sessile	Trillium grandiflorum	Trillium luteum
Trillium flexipes	Twinleaf	Bellwort
Solomon's Seal (vs)	Solomon's Plume	Appendaged Waterleaf
Bedstraws	Great or Star Chickweed	Jewelweed - Touch-me-not
Squirrel-corn	Bloodroot	Wild Ginger
White Stripe Violet	Jack-in-the-pulpit	Yellow Corydalis
Common Blue Violet	Celandine Poppy (Wood Poppy)	Fleabane
Garlic Mustard	Virginia Knot Weed-Lady's Thumb	Lesser Celandine

Appendaged Waterleaf

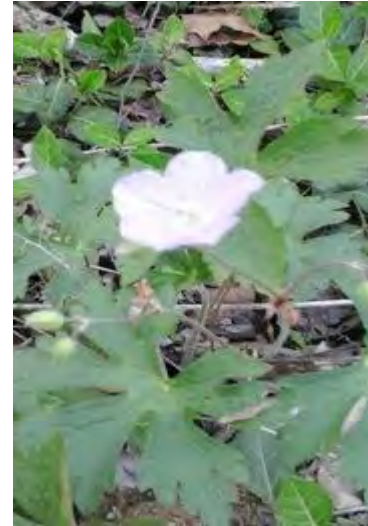
vs

Wild Geranium



Wild Geranium - *Geranium maculatum* - Native Range: Northeastern North America

This wild geranium is a clump-forming, woodland perennial which typically occurs in woods, thickets and shaded roadside areas throughout the State. Forms a mound of foliage that grows to 24" tall and 18" wide. Features 1 1/4" diameter, pink to lilac, saucer-shaped, upward facing, 5-petaled flowers in spring for a period of 6-7 weeks. Deeply cut, palmately 5-lobed, dark green leaves (to 6" across). Flowers give way to distinctive, beaked seed capsules which give rise to the common name of crane's bill (*geranium* in Greek means crane).



Appendaged Waterleaf *Hydrophyllum appendiculatum*

Loose clusters 2 to 3 inches across of pinkish purple to lavender flowers at the tips of stems and branches that arise above the leaves. The terminal flowers in the cluster open first (cyme). Flowers are $\frac{1}{2}$ to $\frac{3}{4}$ inch across, saucer to bell shaped, with 5 oval petals fused at the base, 5 slender white stamens with dark purplish tips.



Leaves are simple and alternate, oval to round in outline. Lower leaves are 2 to 6 inches long and wide, on a long stalk with 5 to 7 dominant lobes and shallower lobes along the edges, all lobes pointed at the tip with shallow, irregular teeth around the edges. Upper leaves are reduced in size, often just 3 shallow lobes. Upper leaf surface is covered with soft scattered hairs. Stems are weak and covered in long hairs, the mass of branches often supported by surrounding vegetation.

May to early June is a good time to search for this plant. It is easy to distinguish from the related [Virginia Waterleaf](#) (*Hydrophyllum virginianum*) by the leaf shape and the small reflexed appendages on the calyx.



Ragworts: Golden Ragwort *Packera aurea*

In the Aster Family

This perennial wildflower is ½–2' tall. At the base of each plant, there is a small rosette of basal leaves spanning about 6-8" across. The slender petioles of the basal leaves are as long as the blades. A flowering stalk develops from the center of each rosette. Along this stalk, there are usually 2-3 alternate leaves. Both the alternate leaves and the stalk are hairless during the blooming period and thereafter. The stalk terminates in a flat-headed panicle (or corymb) of flowerheads.



Round-leaved Ragwort *Packera obovata*

Duration:

Perennial

U.S. Nativity:

Native

Species Notes:

Bright yellow flower clusters bloomed on this 1-2 ft plant. This plant bloomed from mid May through mid June. This species was one of the least attractive early season plant species to natural enemies.



Butterweed - *Packera glabella* (formerly *Senecio glabellus*)



The butterweed has fleshy hollow & relatively thick stems 2-3 feet tall. Heads are about 3/4th of an inch across. Basal leaves are deeply pinnately lobed, with the terminal lobe largest; stem leaves are similar but very much smaller. An annual or biennial, it is common in wet meadows and wet open woods. It is considered a weed in farmer's fields.

Getting ready to bloom



Comparison of Butterweed to Golden Ragwort

Butterweed in hand - note thick stem

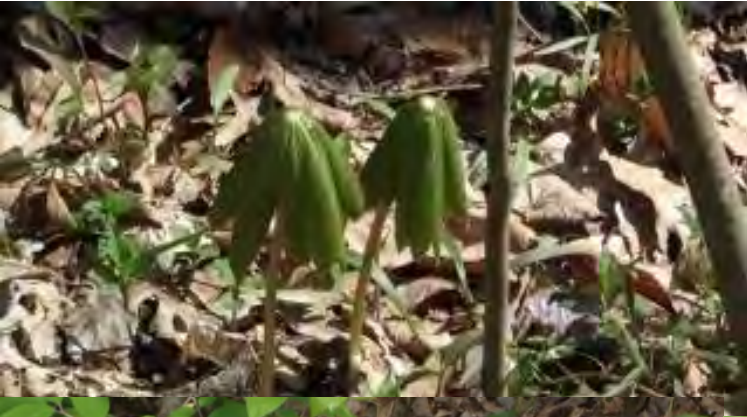


Golden Ragwort in ground compared to thick stem of Butterweed



Mayapple - *Podophyllum peltatum*

This herbaceous perennial plant is 1–1½' tall. Infertile (?immature) plants are unbranched, & they produce a single leaf from a long stalk; Whereas, fertile (mature?) plants produce a pair of leaves on long petioles at the apex of this stalk. The flower becomes a (not for human consumption) “apple in “May.””



Blue Phlox - *Phlox divaricata*

The flowers, each $\frac{3}{4}$ - 1 inch across are usually blue, but occasionally rose-purple. They have corolla lobes, usually notched, but sometimes without a notch. The stems are hairy and 12-20 inches high. The leaves are lance-ovate to oblong.



Dwarf Larkspur - *Delphinium tricorne*

“Delphinium,” the genus name, is from the Greek word for “dolphin,” describing the curving shape of the flower spurs.

“Tricorne,” the species epithet, is from Latin and means “with three horns,” and describes the shape of the fruit.

A single-stemmed herbaceous perennial with an upright flower stalk bearing racemes of bluish-purple flowers. Flowers irregular, with 5 showy, petal-like sepals; the true petals are reduced to inconsequential appendages. One sepal extends backward, forming a long spur. There may be few to many flowers, in shades of blue, violet, white, and mixtures of these. Blooms April-June. Leaves few, shaped like an outstretched hand, deeply divided into linear segments.



Rue Anemone - *Anemonella thalictroides*



False Rue Anemone - *Dentaria laciniata*



Trilliums have leaves, petals and sepals in whorls of three.

Trillium luteum (Yellow Trillium)



Flowering Period - May. Flowers are lemon yellow. Leaves are large and spotted green. The plants grow 6-10" in semi-shade, border woodland and rocky areas in the eastern U.S.



Trillium sessile (Toadshade)

This species has sessile (stalkless) maroon or purplish flowers with erect petals and erect spreading sepals. There is also a yellow-green form. Leaves are mottled. It grows 4-12" in the woods from Missouri to western New York.



Trillium grandiflorum - (Large-Flowered or White Trillium)



Trillium grandiflorum is the Ohio state wildflower. It grows 12-18" in rich woods from Minnesota to western New England.



Grandiflora senesce and turn light pink to almost maroon as they age.

Trilliums have leaves, petals and sepals in whorls of three.

Trillium flexipes - (Bent Trillium, Drooping Trillium)

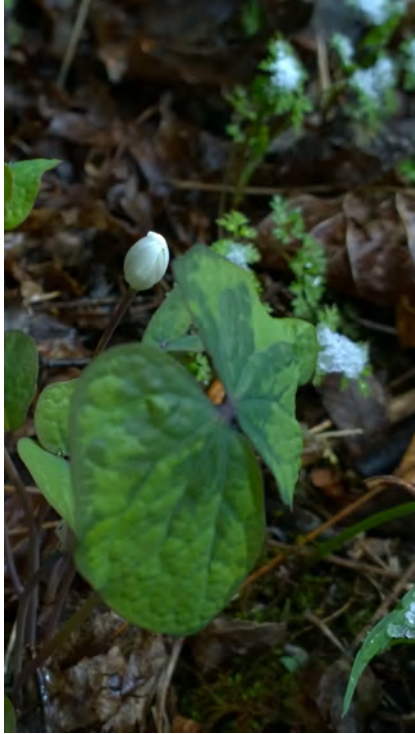
The flower in this species is usually nodding beneath the leaves. The petals are $\frac{3}{4}$ - $1\frac{3}{4}$ inches long and are most often white but may be maroon or an intermediate color, but the ovary is always white or pale.



This trillium grows in rich woods in the Bluegrass region and westward and south westward.



Twin Leaf - *Jeffersonia diphylla*



The genus was named for Thomas Jefferson, the species name and the common name refer to its leaves which are divided into 2 segments. The 8 petal flower is on a leafless stalk and has a very short time span for viewing. The seed capsules open by a lid that remains hinged at the back. It blooms in late March to early April.

Solomon's Plume versus Solomon's Seal

When it first comes up it is hard to tell which one it is.

Solomon's Plume or False Solomon's Seal - *Smilacina racemosa*



This herbaceous perennial plant is up to 2½' tall. The central stem is ascending, rather than stiffly erect. These leaves are up to 6" long and 3" across. Each flower is about 1/6" across. These floral parts are white. The blooming period occurs from late spring to early summer and lasts about 3 weeks. Each flower is replaced by a few-seeded berry. Individual berries are about ¼" across and globular; they become bright red, or red and purple-striped at maturity.

Solomon's seal - *Polygonatum odoratum*, commonly called fragrant Solomon's seal, is a rhizomatous, shade-loving perennial that typically grows to 18-24" tall on low, gracefully arching, angled (as opposed to cylindrical), unbranched stems. Flowers have a sweet, lily-like fragrance. Flowers bloom late spring to early summer (May-June). Flowers are followed by attractive pendulous blue-black berries (each 1/4" diameter) in fall which hang downward from the leaf axils.



Large-leaf Waterleaf - *Hydrophyllum macrophyllum*



In all species of waterleaf, the flowers have 5 shallow lobes and the stamens and style extend beyond the corolla. The Large-Leaf is rough-hairy, 12-24" high. The leaves are pinnately divided, often having a 2 tone pattern of light and dark green. The dull white flowers are about ½" long. The bloom is in late May to early June but the leaves come up first as in this picture on the left.



Bellwort

Uvularia is a genus of plants in the family Colchicaceae, close to the lily family (Liliaceae). They are commonly called **bellworts**, **bellflowers** or **merrybells**. The genus name is derived from the Latin *ūvula* meaning "little grape," likely because of the way the flowers hang downward. For the same reason *Uvularia* may also refer to the similarly derived palatine uvula, which hangs down from the soft palate in the mouth. This unusual flower (yellow) is found in April and May, often on wooded slopes or in ravines and it spreads by stolons, or stoloniferous rhizomes. The plants are usually 18 to 24 inches (45–60 cm) in height and bear one or two flowers which hang downward from the axils of the leaves.



Star Chickweed



Star Chickweed

Stellaria pubera

Pink family (Caryophyllaceae)

Description: This perennial wildflower is about 6-12" tall and unbranched, or sparingly so. Both fertile and infertile shoots are produced; the latter develop later in the year and don't produce flowers. The central stem is light green to pale purplish green and glabrous to moderately pubescent. The opposite leaves are up to 3" long and 1¼" across; they are ovate, lanceolate, oblanceolate, elliptic, or broadly oblong. The upper surface of these leaves is medium to dark green and finely pubescent (sometimes sparsely); their margins are smooth (entire) and ciliate. The leaf bases are sessile or nearly sessile, while their tips are either acute or blunt; lower leaves are more likely to have short petioles and blunt tips than upper leaves.

Squirrel-corn - *Dicentra canadensis*



The foliage is easily mistaken with the foliage of its close cousin, Dutchman's Breeches (*D. cucullaria*), but the leaves of squirrel corn are typically shorter and there is one compound leaf per flowering stem compared to Dutchman's breeches which has longer leaves. The plants are typically about 6" tall and squirrel corn gets its common name from the underground food storage structures that look like corn kernels.



Dutchmen's Breeches - *Dicentra cucullaria*

Soon after flowering and by mid-summer, the leaves will turn yellow and disappear. The flower stalks and leaves arise from a underground scaly bulb. Seeds are dispersed by ants, who are enticed to carry the seeds underground because the seeds contain Elaisome. The fruit is a two-part capsule, pollinated by bumble bees whose proboscises are long enough to reach the nectar. Honey bees pollinate by their front feet. Other insect species that can not reach the nectar will snip a hole at the bottom of the flower to "steal" it of nectar.



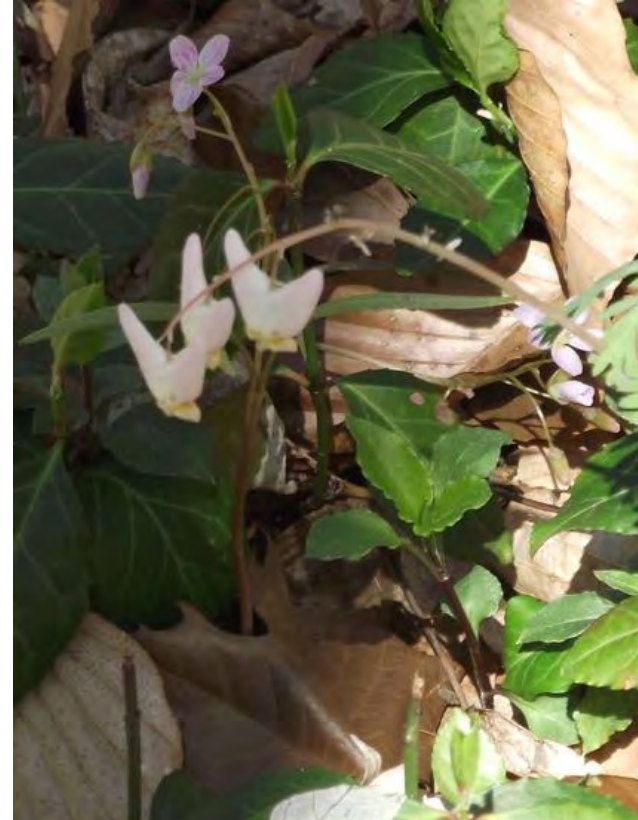
Spring beauty

In upper left

Hand corner

w/ /Dutchman's

Breeches



Bloodroot *Sanguinaria canadensis* is a perennial, herbaceous flowering plant native to eastern North America.

Plants are variable in leaf and flower shape and have in the past been separated out as different subspecies due to these variable shapes.

Currently most taxonomic treatments include these different forms in one highly variable species. In bloodroot, the juice is red and poisonous.



Bloodroot in a patch
of the invasive
Winter Creeper
at Caldwell Preserve.



Jewelweed, *Impatiens capensis*

An annual [plant](#) native to [North America](#). (It starts in the spring (like in this picture) from the seeds put off from last year's plants. The way the seeds are spread gives it the name "touch-me-not" because when the seed pod is touched, the seeds pop out and spread. It is common in bottomland soils, ditches, and along creeks. All of the species of jewelweed are considered a traditional remedy for skin rashes, caused by poison ivy even though controlled studies don't back up this claim.



The darker leaves in this picture are "**Winter Creeper**" -

Euonymus fortunei (Turkz.) Hand.-Maz. of the Bittersweet family (Celastraceae) Its **origin is** China, Japan, Korea.

Winter creeper, or creeping euonymus, is an evergreen perennial vine that was introduced as an ornamental groundcover.

Winter Creeper is moving up the creek valleys and overtaking the native wildflowers in Caldwell Preserve. Winter creeper has been reported to be invasive in natural areas in most of the states in the eastern half of the U.S. It can tolerate a broad range of environmental conditions ranging from full sun to deep shade, and acidic to basic and low nutrient soils, but it does not grow well in heavy wet soils.

Ecological Threat - Winter creeper is a vigorous vine that invades forest openings and margins. It grows across the ground, displacing herbaceous plants and seedlings and climbs trees high into the tree canopy by clinging to the bark. Forest openings, caused by wind, insects or fire are especially vulnerable to invasion.

Wild Ginger - *Asarum canadense* L.



Wild ginger, is found throughout the eastern half of the United States. It grows in rich mesic soils in shady deciduous forests. Many a hiker has walked past the large colonies of this early spring wildflower not realizing that it has an interesting and peculiar flower underneath the canopy of its heart-shaped leaves. Wild ginger's flower is located at the base of the plant lying adjacent to the ground. The flowers are bell shaped and brownish purple like a little knocked over jug on the ground.



Bedstraws, Cleavers



Bedstraw (genus *Galium*), also called **cleavers**, plant genus of about 400 species of low-growing annual or perennial herbs in the madder family (Rubiaceae). They can be found in damp woods and swamps and along stream banks and shores throughout the world. Bedstraw plants are characterized by finely toothed, often needle-shaped leaves.

The small flowers, borne in clusters, are green, yellow, or white. The fruit is composed of two rounded nuts joined together and frequently covered in hooked bristles to promote animal dispersal. The plants commonly reproduce asexually by spreading rhizomes and stolons.

Northern bedstraw (*G. boreale*), common marsh bedstraw (*G. palustre*), and goosegrass (*G. aparine*) are common throughout Europe and have become naturalized in parts of North America.

The roots of several species of *Galium* yield a red dye, and many were used historically to stuff mattresses, hence their common name.



Celadine Poppy or Yellow Wood Poppy - *Stylophorum diphyllum*

Native in the US's lower 48 states. This 12-14 in. perennial with gray-green, lobed and toothed leaves is known for its large, poppy-like, yellow flowers. The stalks are leafy and the flowers are produced in clusters. A plant with yellow sap and yellow flowers, solitary or in small clusters, atop a stem bearing a pair of deeply lobed leaves; other leaves basal.



Caldwell hillside covered with
Celadine Poppy

Fleabane - Erigeron

Erigeron is a large genus of plants in the daisy family. It is sometimes confused with other closely related genera, Aster and the true daisy *Bellis*.

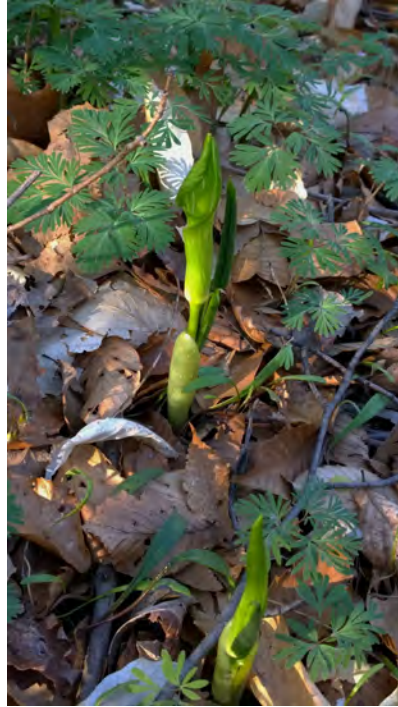
Its English name, fleabane, is shared with related plants in several other genera. It appears to be derived from a belief that the dried plants repelled fleas or that the plants were poisonous to fleas.

The generic name *Erigeron* is derived from the Greek (*eri* = early; *geron* = old man), a reference to the appearance of the white hairs of the fruit soon after flowering or possibly alluding to the early appearance of the seed heads.



Jack in the Pulpit - *Arisaema triphyllum*

One to two large, glossy leaves, divided into three leaflets, rise on their own stems 1-3 ft. The intriguing blossom of this woodland perennial occurs on a separate stalk at the same height as the leaves. It is a large, cylindrical, hooded flower, green in color with brown stripes. Distinctive Jack-in-the-pulpit formation grows beneath large leaves. In late summer, a cluster of bright red berries appears.



Yellow Corydalis - *Corydalis flavula*

The finely cut leaves and flower structure show its close relationship to Dutchman's Breeches and Bleeding heart. Flowers are yellow with a crest on the toothed upper petal. Spur is stubby and depressed. Flowering April to May.



Violets

White Stripe Violet



Common Blue Violet

Downy Yellow Violet



Kidney-Leaved Buttercup

Ranunculus abortivus L. -

Early wood buttercup,

Kidney-leaf buttercup,

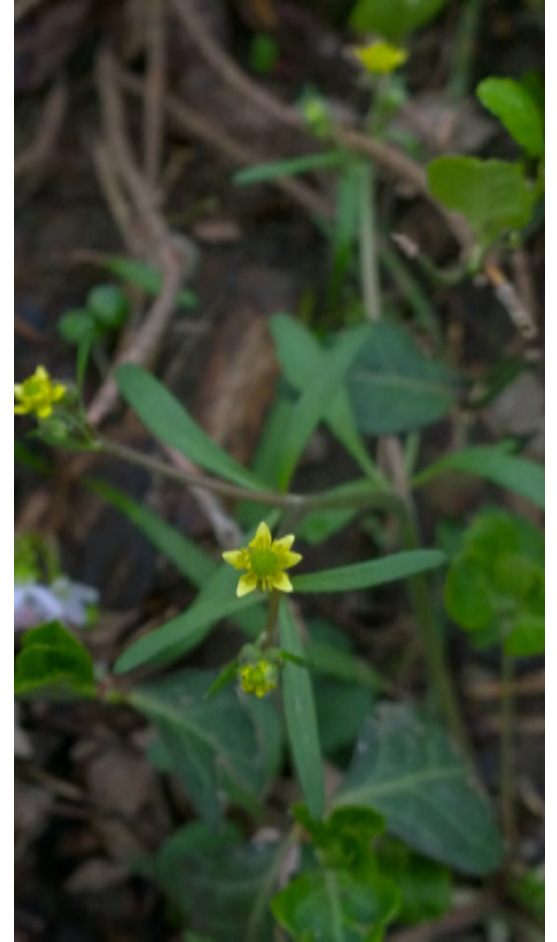
Littleleaf buttercup



An erect to spreading biennial or short-lived perennial, 6-24 in. tall. Basal leaves are kidney-shaped; stem leaves are once- or twice-parted. Small flowers with drooping, yellow petals are numerous. A branching plant bearing kidney-shaped, basal leaves and inconspicuous, yellow flowers with drooping sepals.

With its small petals, this species does not look much like a buttercup, but its many separate stamens and pistils are typical of the genus. The species name refers to the reduced petals. At least 10 similarly small-flowered species occur in eastern North America.

Flowering period: April through August



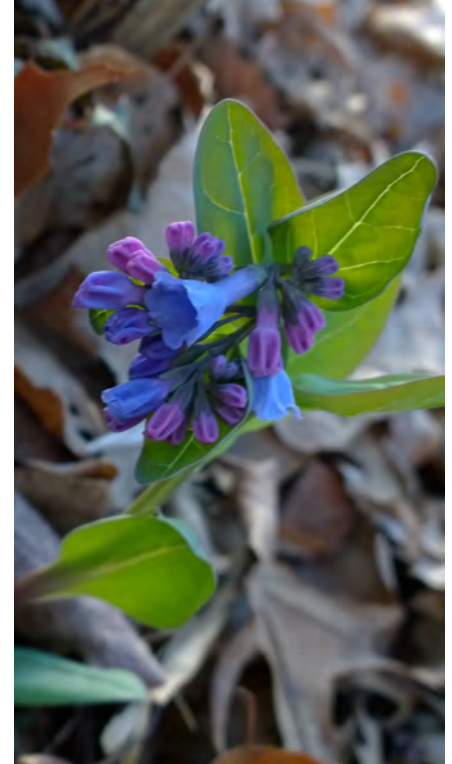
Cut-leaf Toothwort - *Dentaria laciniata*



In all species of *Dentaria*, the flowers have 4 petals and are in racemes and the pods are slender. In the cut-leaf toothwort, the leaves are in a whorl of 3 on the stem, each with 3-5 narrow, deeply toothed segments. The flowers, which are usually white but occasionally pinkish, are about $\frac{1}{2}$ inch long and the plant is 8-12 inches high. It is in the Mustard family and blooms from late March to April.

Virginia Bluebells - *Mertensia virginica*

Flowering period - March through May. The nodding, trumpet-like flowers are pink when in bud, blue when open and then fade back to pink with blue as it ages. The oval leaves are smooth and strongly veined; stem is smooth and succulent. Grows 1-2' in bottomlands, river woods and rocky slopes.



Stonecrop - *Sedum ternatum*

Flowering period -
April to June.

Leaves, usually in
whorls of 3 are
fleshy and toothless
horizontal branches
which lie along the
ground sending up
erect stalks. It
grows 4-8 inches on
damp rocks and
banks mostly in
hills.



Blue Cohosh - *Caulophyllum thalictroides*

Blue cohosh a species of *Caulophyllum*, also called squaw root or papoose root, is a flowering plant in the Berberidaceae family. It is a medium-tall perennial with blue berry-like fruits and bluish-green foliage. From the single stalk rising from the ground, there is a single, large, three-branched leaf plus a fruiting stalk. The bluish-green leaflets are tulip-shaped, entire at the base, but serrate at the tip.



It is found in hardwood forest of the eastern United States, and favors moist coves and hillsides, generally in shady locations, in rich soil. It grows in eastern North America, from Manitoba and Oklahoma east to the Atlantic Ocean.



Whiteflower leafcup - *Polymnia canadensis*

A flowering plant native to eastern North America from Ontario south to Alabama and from Kansas, Oklahoma, and Minnesota east to North Carolina, Vermont and Connecticut.

It is more easily identified by features other than the small flowers which are present only in the late summer. Often it grows in stands of several plants clustered together. The leaves vary in shape from deeply lobed leaves at the lower part of the plant to the simple leaves at the upper part of the plant (see photo). The sap is clear, sticky and pleasantly fragrant.



***Silphium perfoliatum*, the cup plant or cup-plant**

A species of flowering plant in the Asteraceae family, native to eastern and central North America. It is an erect herbaceous perennial with triangular toothed leaves, and daisy-like yellow composite flower heads in summer.

This is an imposing, but attractive plant when it is in bloom. Cup Plant is easy to distinguish from other *Silphium spp.*, as well as various sunflowers, by the perfoliate leaves that can hold water, and the hairless four-angled stems.



Great Indian Plantain - *Arnoglossum reniforme*

It is topped by a cluster of white flowers. Each blossom is composed of only disk flowers; no ray flowers.

Great Indian Plantain is 3 to 9 feet tall, with basal and stem leaves which are palmately lobed. The leaves can be huge. The blossoms have white disk flowers only, with 10 to 20 blossoms per terminal cluster. The identification as *A. reniforme* is based on the distinct ribbing on the stems.



Hooked Buttercup or Hooked Crowfoot - *Ranunculus recurvatus*



The achenes of hooked crowfoot have long hooked beaks that distinguish this species from other crowfoots. It is found in shallow, still or slow-moving freshwater sites, including forests, shores of rivers or lakes, swamps, wetland margins (edges of wetlands).

Sweet Cicely - genus *Osmorhiza*



Large-Flowered Valerian, *Valeriana pauciflora*



The noxious weed *Ficaria verna*, native to Asia, Europe and North Africa is known locally by the common name “**Lesser Celandine**” but it is in no way related to the Wood Poppy - Celandine Poppy.

Lesser Celandine

The problem with Lesser celandine is that it outcompetes and excludes native plants.

It emerges before most other spring ephemeral plants which can give it a competitive advantage over our native understory plant communities. It is invasive, difficult to control and is spreading in native forests all over our area.

Because there is a hillside of Celandine Poppy at Caldwell and many areas of the Lesser Celandine in the same park, it is very important that persons trying to kill Lesser Celandine know the difference between these plants.



Garlic mustard (*Alliaria petiolata*)

It is an invasive herb that has spread throughout much of the United States over the past 150 years, becoming one of the worst invaders of forests in the American Northeast and Midwest. While it is usually found in the undergrowth of disturbed woodlots and forest edges, recent findings have shown that garlic mustard has the ability to establish and spread even in pristine areas. This spread has allowed it to become the dominant plant in the undergrowth of some forests, greatly reducing the diversity of all species. Garlic mustard is one of very few non-native plants to be able to successfully invade forest understories.

Garlic mustard originated from Europe and parts of Asia. It is believed that garlic mustard was introduced into North America for medicinal purposes and food. The earliest known report of it growing in the United States dates back to 1868 on Long Island, NY. It has since spread throughout the eastern United States and Canada.

Year 1



2nd year



the next years....



Beginning stage of Virginia Knot Weed - the plant develops a non showy plume



Also known as Lady's Thumb

Persicaria maculosa

Knotweed family - Polygonaceae

