Helpline Happenings
April 7, 2025
Lesser Celandine
Ficaria verna
Alexandra Radbil



Photo: Minnesota Dept of Agriculture

IS THAT LOVELY, EARLY, YELLOW FLOWER FRIEND OR FOE?

In early spring, when gardens and woodlands burst with yellow flowers, it is prime season for certain weeds. Without tree cover blocking the sun and with temperatures still too cool for many other plants to germinate, some weedy plants can get an advantage. It is important to know which of these yellow-flowered spring plants is native and which invasive. Lesser celandine (Ficaria verna) is a one such “spring ephemeral” invasive weed.

Lesser celandine ***Ficaria verna*** **(previously *Ranunculus ficaria*)**	**Marsh marigold** ***Caltha palustris***	**Creeping buttercup** ***Ranunculus repens***
		
Photo: Bianca Begert **FOE**	**Photo: Ruiyan Xu** **FRIEND**	**Photo: Missouri Botanical Garden** **FOE**

Lesser celandine is classified, by definition, as an invasive species because, one, it is not a native plant (it is native to Europe, Asia and northern Africa) and two it is a vigorous spreader that outcompetes native plants. The first known example in North America was discovered in an 1867 herbarium in Pennsylvania.

HOW TO ID LESSER CELANDINE?



Photo: David L. Clement
U of Maryland Ext

Lesser celandine (*Ficaria verna)* is low growing and mat-forming, with long stalked leaves densely arranged in a basal rosette. Mature rosettes can reach up to 12” in diameter and up to 12” tall.

The kidney shaped leaves are 1.6 to 3.5” wide, smooth, and have wavy edges which appear in early spring (late March – mid-April) and senesces (disappears) in summer.

Leaf stalks (petioles) are deeply grooved and U-shaped in cross section.

Flowers are yellow, 0.8 to 2.4” wide and have long 4 to 12” peduncles.

There are five sub-species of lesser celandine, distinguished largely by reproductive characters. Ornamental varieties may have a range of flower colors.

How Does Lesser Celandine Grow?

Lesser celandine prefers moist, sandy soil, and thrives along stream and riverbanks, in open forested flood plains, and in other wetland sites. It will grow in drier habitats, however, and as a garden escapee can often be found in urban and semi-urban areas.

Triggered by increased light in early spring, shoots emerge from late-March to mid-April and form rosettes. Flowers appear from late April to mid-May. Some sub-species produce pale aerial bulbils in the leaf axils. Seed production occurs in late spring. By summer the leaves die back, and the plant becomes dormant. Leaves often remerge in the fall.

Seeds do not mature on the plant but ripen on the ground. Bulbils are dispersed through animal and environmental disturbance and can be carried along waterways.

Why Worry About Lesser Celandine?

By emerging earlier than most native plants, lesser celandine may inhibit the growth and reproduction of other spring ephemerals, especially smaller species like spring beauties (Claytonia spp.), trilliums (Trillium spp.), and bloodroot (Sanguinaria canadensis). By outcompeting the natives, an important source of nectar for bees and other insects is diminished. After lesser celandine senesces in late spring, it leaves behind bare ground that may be colonized by other weedy species or may result in erosion.

Lesser celandine is an aggressive spreader that reproduces vegetatively through tubers giving it another advantage over native plants. New plants grow from aerial bulbils, tuberous roots, and fragments left after weeding. The bulbils, by adhering to tools, clothes, and shoes, are spread to new locations. If you drive a car through a stand of

lesser celandine, bulbils can hitch a ride and be deposited in new places. Bulbils are also carried by flowing water to new areas.



Bulbils (stem bulbs)
Photo: Leslie J. Mehrhoff invasive.org



Tubers
Photo: David L. Clement invasive.org

How to Remove Lesser Celandine?

Lesser celandine can be challenging to effectively control, often taking 2 – 3 years to eradicate completely. Accurately ID the plant and its locations. Look for rosettes in late winter/early spring and then look for regrowth in fall.

Small infestations can be removed manually. Dig up and collect tubers, and sift soil to catch bulbils, stems, and tubers. Carefully clean tools, clothes, and shoes.

DO NOT COMPOST but put in plastic bags in the trash.

Early season mowing that is repeated may reduce growth and spread but carries the risk of spreading the plant by bulbils.

Large infestations can be controlled by spraying with a systemic herbicide. Penn State recommends using a glyphosate product. The treatment window is short: before flowering up until ~50% of plants are in flower (late-March - April in PA) . This schedule minimizes injury to native non-target plants.

Always check state/provincial and local regulations for the most up-to-date information regarding permits for control methods. Follow all label instructions.

How to Prevent Lesser Celandine

Do an inspection in early spring every year. And a repeat in the fall. Catching lesser celandine when it first appears is a key step in preventing its spread.

Remove dirt from shoes and equipment after working or traveling in an area with lesser celandine.

Lesser celandine sometimes is offered at plant swaps and sales. It is attractive and easy to grow. **DON'T BUY IT.**

Educate other people about this invasive plant.

LOOK ALIKE FOE – CREEPING BUTTER CUP



Photo: Ohio State Weed Lab



Photo: Leslie J. Mehrhoff, U of Ct.



Photo: Leslie J. Mehrhoff, U of Ct



Photo: John Cardina, Ohio State U

L , c Ra gical t fo es e plants. It is often mistaken for native buttercups. Creeping buttercup, like lesser celandine, occurs most commonly in rich, damp soil, but can be found in moist sand or gravel.

It usually creeps along the ground spreading by means of roots that form at nodes on non-flowering, arching stems.

Its leaves are dark green, heart-shaped, and alternate. They are divided into 3 segments like a three-leaf clover.

The flowers, about 1" across, are bright yellow and showy. They appear singly or in clusters from May to July. They have 5-7 petals measuring 0.3-0.6" in length.

The flowers are clusters of achenes or single-seeded fruits that form spiky-looking round heads. Seedheads are each composed of 20 to 50 seeds. Seeds are light to dark brown, flattened, egg-shaped in outline, and 1/8 inch long, with a short, hooked tip.

LOOK ALIKE FRIEND
MARSH MARIGOLD



Marsh marigold
Photo: Ruiyan Xu

Like lesser celandine, marsh marigold loves damp areas and has yellow starburst flowers, but it grows in clumps, not dense mats, and its flowers have 5 to 6 petals, many less than the 8 to 12 "petals" of lesser celandine.

Marsh-marigold makes an excellent, ecologically sustainable native alternative because they are pollinated by pollen-seeking syrphid flies (*Neoascia* spp., *Xylota* spp., and *Lejops* spp.). The flowers are also visited by several small- and mid-sized bees. Ants (family Formicidae) and cuckoo bees (*Nomada* spp.) collect marsh marigold nectar. The flowers attract birds. Mammalian herbivores avoid the acrid leaves.

It is a useful addition to rain gardens, bog gardens, or wet areas.

The plant can irritate the skin of some people. The early spring greens are edible by humans if cooked, but toxic if eaten raw. Green plants can poison cattle and horses, but dried plants in hay are non-toxic.

HOW TO ID MARSH MARIGOLD

Marsh marigold can be distinguished from lesser celandine by its finely toothed leaves, flowers with more rounded petals, larger stature, and growth habit as individual plants rather than a ground cover.

It has yellow starburst flowers with 5 -6 petal-like sepals that are filled with rich yellow stamens. The flowers bloom mid-April - June



Marsh marigold
Photo: Emily Rojick
Penn State

FUN FACTS

Lesser celandine is also called fig buttercup because its tubers resemble tiny figs. The scientific name - *Ficaria verna* means “spring fig.”

Marsh marigold – "petals" appear all yellow to humans. Insects see UV light in addition to visible light and thus see different colors than humans do!



Photo: Adrian Davies

Marsh marigold (*Caltha palustris*) in
visible light (left) UV (center) "bee vision" (right)

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