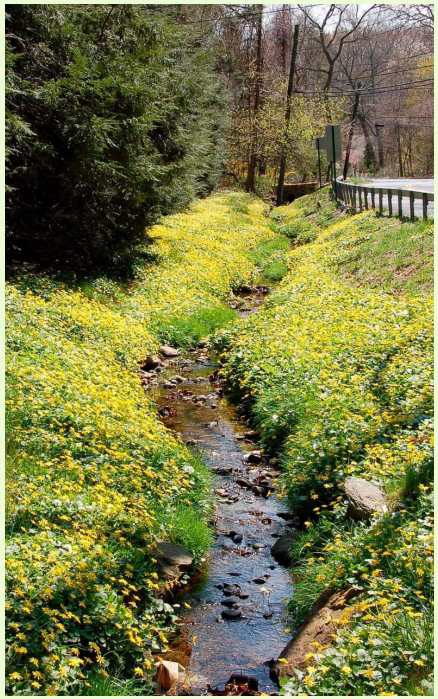

Photo: John M. Randall, The Nature Conservancy, Bugwood.org

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

A Word of Caution

Use herbicide control methods only for large infestations where manual and mechanical removal becomes impractical. For any herbicide applications we urge you to work with a licensed herbicide applicator. To learn more, consult the best management practices provided by the 4-County Cooperative Weed Management Area (www.4countycwma.org/AWeeds/Best-Management-Practices/). If any information provided contradicts the label, the label takes precedence. Always read and follow the label on any herbicide product you are using!

Please contact your local weed program in either Oregon (www.Oregon.gov/ODA/programs/Weeds/Pages/CountyWeedPrograms.aspx) or Washington (www.NWCB.wa.gov/Find-Your-County-Weed-Boards) for more information about how to control this invasive weed.

The mission of the 4-County Cooperative Weed Management Area, comprising Clackamas, Clark, Multnomah, and Washington Counties, is to create and support collaborative weed management in the greater Portland area. For more details on our collaborative efforts in management, mapping, and outreach, please visit our website:

www.4CountyCWMA.org

LESSER CELANDINE

(*Ranunculus ficaria L.*)

4-County CWMA Class B
Oregon Class B
Washington Class B

Photo: Rob Routledge, Sault College, Bugwood.org

Overview

Lesser celandine, native to Europe, is a low-growing perennial plant. It was originally cultivated as an ornamental due to its attractive yellow flowers and ability to quickly create a uniform groundcover. Lesser celandine grows vigorously and forms large, dense patches in gardens and on forest floors, displacing native and ornamental plants. It can easily out-compete spring-flowering plant communities and negatively impact local wildlife. This invader emerges well in advance of most native plants and spreads rapidly via underground tubers and bulblets. The prolific tubers may spread to new sites during flood events or be unearthed and scattered by humans and other animals. It grows in full shade to full sun and prefers moist to wet soils but can persist in a wide range of conditions.

How to Identify

Lesser celandine plants consist of rosettes of tender, succulent, dark green, shiny, stalked **kidney- to heart-shaped leaves.** Flowers are symmetrical, bright yellow with a slightly darker center found singly on delicate stalks that rise above the leaves. The number of petals on each flower varies greatly across the species, ranging from 6 to 26 with double bloom varieties displaying up to 60 petals. **Three (rarely 4) green sepals are present** and are a good distinguishing factor when examining look-alikes.

Look-alikes

Lesser celandine closely resembles marsh marigold, *Caltha palustris*, a native wetland plant occurring outside the CWMA area and unlikely to be found locally. Another native marigold with white flowers, *Caltha leptosepela*, is found in the area. To be sure you are not dealing with a native *Caltha* species, examine the flowers and the roots. *Caltha palustris* appears not to have sepals, but in fact lacks petals and has only yellow colored sepals. Neither *Caltha* species has tubers or form dense continuous mats like lesser celandine.

Photo: Kathy Shearin, East Multnomah Soil and Water Conservation District

Prevention

This plant was formerly sold as an ornamental and is still found in many gardens. Early identification and timely removal of lesser celandine is crucial to preventing its spread. Care should be taken not to move contaminated soil, and plant parts should all be disposed of in the landfill to prevent contamination of the yard debris and compost system. After working in an infested area, tools and footwear should thoroughly cleaned. Lesser celandine is extremely hard to control once established.

When to Remove

Due to its short life cycle, the window of opportunity for controlling lesser celandine is very short. Lesser celandine flowers in late winter before many other plants have started growing. It's best to **remove manually or with herbicide when all the plants have come in for the season, just before or during its early flowering period** (late winter/early spring).

Manual Control Method

THIS METHOD SHOULD BE USED WHEN:

- Terrain is flat or gently sloped
- There are desired plants in or around invasion
- Infestation is very small

TOOLS YOU NEED:

- Garden trowel, shovel
- Soil sifter
- Bag for tubers and bulblets

1. When soil is moist, carefully DIG plants and SIFT soil to remove the tubers/bulblets. Carefully bag all tubers and bulblets and place in a plastic bag. Label the bag ***"Invasive plant material – do NOT compost"*** and dispose of it in the trash. This method is extremely labor intensive and will not be feasible at most sites. Because of the massive soil disturbance this method causes and the likelihood of increasing its spread, **manual control is generally not recommended** in riparian zones or wetlands unless dealing with an extremely small population (i.e. a few plants).
2. PLANT native or non-invasive plants in the control area after the bulk of the invasive plants are removed. This will help to repopulate the area with desired species and prevent new and recurring infestations.
3. MONITOR area for re-sprouts. Lesser celandine tubers will continue to grow and produce new plants. After initial removal, the area needs to be managed every few weeks to dig out new growth. When the majority of plants have been removed, the site should only need yearly monitoring.

Herbicide Control Method

Herbicide methods should only be used in combination with manual control and monitoring.

THIS METHOD SHOULD BE USED WHEN:

- Infestation is too large for manual removal
- Walking may be difficult on slopes
- The infestation contains few other desirable plants

TOOLS YOU NEED:

- Herbicide: low rates (1-2%) of glyphosate have had some success in controlling
- Herbicide applicator; Backpack sprayer/squirt bottle
- Any additional personal protective equipment specified on the herbicide label

1. When using glyphosate to control lesser celandine, plants should be sprayed at the recommended label rate. Glyphosate treatments should be carried out in late winter or early spring, just before or in early flowering, generally February through early March. Glyphosate will kill grasses, so use this only in areas where grass damage can be tolerated .
2. One treatment generally does not effectively kill an invasion. MONITOR your site for regrowth of lesser celandine and repeat manual control or herbicide application as needed.
3. REPLANT native or non-invasive plants in the control area after the bulk of the invasive plants are removed. This will help to repopulate the area with desired species and prevent new and recurring infestations.

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org