

# U.S. National Early Detection and Rapid Response System for Invasive Plants

## EDRR Fact Sheet

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**Common Name:** Garlic Mustard

**Scientific Name:** *Alliaria petiolata* (M. Bieb.) Cavara & Grande (Brassicaceae)

**Family:** Brassicaceae

**Synonyms:** *Alliaria alliaria* (L.) Britton, *Alliaria officinalis* Andrzej ex M. Bieb., *Erysimum alliaria* L., *Sisymbrium alliaria* (L.) Scop.

**Description:** A cool season, biennial herb. **First year plants** are basal rosettes with heart-shaped, evergreen leaves, 1-6" long. **Second year plants** produce a flowering stalk, 1-4' tall. **Leaves** strongly toothed, triangular in shape, alternately arranged on the flowering stalk. **Flowers** white, with four petals in the shape of a cross, 6 mm in diameter, in button-like clusters. **Fruit** a slender pod (silique) with oblong, black, shiny seeds. The plants are easily recognized by a garlic odor that is present when any part of the plant is crushed, and by the toothed, triangular leaves.

**Habitat:** Natural forests, planted forests, riparian zones, and urban areas. Invasion is more likely in moist shaded soil of river floodplains, forest edges, and other disturbed areas, such as along trails and roadways. It prefers moist, rich soil, but is found in sand, loam, clay, limestone, and sandstone substrates. It is less common on acidic soils.

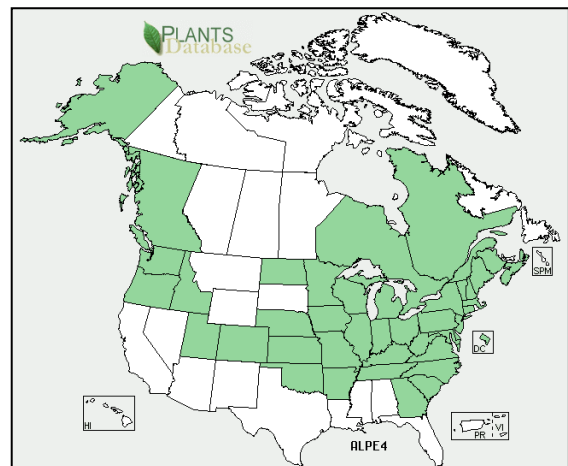
**Native Range:** Europe.

**Pathways of Introduction and Spread:** Garlic mustard was introduced to North America for cooking purposes. It can be used as a garlic flavored herb, and is high in vitamins A and C. The seeds are transported by water, animals, and humans.

### U.S. and Canada Distribution:

#### Ecological and Economic Impacts:

Garlic mustard poses a severe threat to native plants and animals in forest ecosystems. A high shade tolerance allows Garlic mustard to form dense stands in mature woodlands. Once established in an area, it degrades habitat for wildlife by outcompeting native plants for light, moisture, nutrients, and space. The plants also produce allelopathic compounds that inhibit seed germination of other species.



**Manual Control:** Manual removal of the plant, including the entire root system, is effective for eliminating small infestations of Garlic Mustard. Larger infestations should be cut at ground level to prevent seed production.

**Chemical Control:** Glyphosate (Roundup) is effective in controlling Garlic mustard. One method is to spot treat Garlic mustard plants in the rosette stage during the dormant season. This will minimize damage to desirable native species. Fire can also be used to stimulate the seeds in the soil to germinate. Once they have germinated, they can be controlled with the chemical.

**Regulatory Status:** Garlic Mustard is regulated as a state noxious weed in [Alabama](#), [Connecticut](#), [Massachusetts](#), [Minnesota](#), [New Hampshire](#), [Oregon](#), [Vermont](#), and [Washington](#).

**Online Resources:**

Garlic Mustard Fact Sheet - Canadian Wildlife Service.

URL: [http://www.cws-scf.ec.gc.ca/publications/inv/p8\\_e.cfm](http://www.cws-scf.ec.gc.ca/publications/inv/p8_e.cfm)

Garlic Mustard Fact sheet – USDA Forest Service – Weed of the Week Series.

URL: [http://www.na.fs.fed.us/fhp/invasive\\_plants/weeds/garlic\\_mustard.pdf](http://www.na.fs.fed.us/fhp/invasive_plants/weeds/garlic_mustard.pdf)

Garlic Mustard Images - U-GA Bugwood Image Gallery.

URL: <http://www.invasive.org/species/subject.cfm?sub=3005>

Garlic Mustard Profile – ISSG Global Invasive Species Database.

URL: <http://www.issg.org/database/species/ecology.asp?si=406&fr=1&sts=sss&lang=EN>

Garlic Mustard Profile - USDA Plants Database.

URL: <http://plants.usda.gov/java/profile?symbol=ALPE4>