

NEGATIVE ECOLOGICAL IMPACTS

Garlic mustard...

- Displaces native woodland plants including rare and endangered species
- Degrades wildlife habitat (even white-tailed deer avoid it!)
- Can cause long-term degradation of forests by shading out native tree and shrub seedlings
- Produces chemicals that inhibit other plant's growth

HABITAT & DISTRIBUTION

Garlic mustard prefers shade, but can tolerate full sun. Look for it along trails and roadsides, at the forest edge, along stream banks, and in disturbed areas. Like most other invasive plants, garlic mustard is opportunistic and quickly invades newly disturbed or developed sites.



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Garlic mustard is most prevalent in Michigan's Lower Peninsula as well as in northern Wisconsin, but is gradually infesting natural areas in the Upper Peninsula. It is important to focus identification and control efforts in the U.P. so we may slow the spread of current infestations and prevent new populations from establishing in our beloved natural settings.

REPORT GARLIC MUSTARD SIGHTINGS

We need your help! Identifying and treating new infestations of garlic mustard is critical to controlling the spread. If you spot an infestation in the U.P., would like to learn more, or volunteer, please contact your local conservation partner. See contact information below.



© Janet Marr, botanist

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Upper Peninsula
Resource Conservation
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PROTECT UPPER PENINSULA FORESTS

FROM

Garlic Mustard

(Alliaria petiolata)



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A GUIDE TO THE
IDENTIFICATION AND
CONTROL OF INVASIVE
GARLIC MUSTARD IN
THE WILD AND IN
YOUR BACKYARD

LIFE CYCLE & IDENTIFICATION

Garlic mustard is a biennial; it has a two year life cycle. Seeds germinate in April.

First-year plants

Leaves: Clusters of 3-8 rounded to kidney shaped rosettes develop at ground level during the first growing season. Look for scalloped edges and a wrinkled appearance. Rosettes remain green all winter.



Left: © Chris Evans, Illinois Wildlife Action Plan; Right: © Deb Leblanc, Hiawatha National Forest

Second-year plants

Rosettes send up a flowering shoot and bloom from late April through early June.

Flowers: Small (1/4 inch), white with 4 petals.

Leaves: Heart-shaped to triangular, 1-3 inches, and coarsely toothed. Alternate arrangement on the stem and typically give off a strong garlic odor when crushed.

Height: Flowering stalks grow 1-4 feet, but plants only a few inches tall can produce flowers.

Roots: Taproot is slender, white, and often has a J-shape at the end.

Seeds: Slender seed pods or "siliques" appear soon after flowering and quickly lengthen. Seeds are small and black when ripe. One plant can produce hundreds to thousands of seeds.

CONTROL METHODS

Hand Pulling

For smaller infestations or where large groups of people are involved, hand pulling before the plant goes to seed can be effective.

- Grasp the plant low and firm on the main stem and gently pull out the plant, making sure to get the entire root system.
- All plants must be bagged and disposed of in a landfill.
- **DO NOT** compost garlic mustard. Few compost piles produce enough heat to destroy all of the seeds.

Cutting

Cut down the flowering stalks after they have elongated but before they have flowered, in the spring. Some plants may send out new flower stalks, so monitor the site regularly.

Chemical

Information about the most effective herbicides, timing, and proper use may be found at:
<http://mipncontroldatabase.wisc.edu/>

or

http://www.ipm.msu.edu/invasive_species/garlic_mustard/management_options

Always follow label instructions.

Garlic mustard control is a multi-year project. Don't forget the seed bank: it can be viable for years! Just because this year's crop has been removed does not mean that your work is finished. Be prepared to come back to the infestation next year, and the next, and the next, until the plant is under control.

PREVENTING FURTHER SPREAD

Prevention is the best way to stop the continued spread of garlic mustard. To prevent further spread, follow the steps below:

1. Clean clothing, shoes, and pets thoroughly after walking or working in an infested area. Use a bootbrush station if it is available.
2. Survey your property and surrounding area for garlic mustard. Plants can be located any time but are easiest to identify in late May-early June when white flowers are present.
3. When you find an infestation, determine the outer edges of the population and remove plants working from the least infested area to the most infested area.
4. Monitor woodlands that are not infested closely and frequently. Removing a few plants (before they go to seed) is much easier than removing many.
5. Be careful what type of compost, hay or soil you bring on to your property, as this is often a source of garlic mustard.



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