

# Vermont Invasive Exotic Plant Fact Sheet

## Garlic Mustard *Alliaria petiolata* (M. Bieb.) Cavara and Grande Mustard family Vermont Class B Noxious Weed

**Description:** Garlic mustard is a biennial herb, with basal leaves that are dark green and kidney-shaped. Stem leaves are alternate, toothed, and triangular or deltoid. In the spring and early summer, leaves and stems produce a distinctive garlic odor when crushed. Flowers consist of 4 white petals that narrow abruptly at the base. Plants usually produce a single unbranched or few-branched flower stalk, and can range in height from 5 to 46 inches (13cm - 1.2 meters). Seeds, black and oblong, are contained within siliques, or narrow, four-sided, linear capsules from 1 to 4.5 inches (2.5 - 11 cm) long. Robust plants can produce up to 5,000 seeds. Seeds germinate in early April through May of the first year. Plants produce only a basal rosette of leaves during the first growing season. Garlic mustard remains green throughout the year. In the second year, plants produce a central leafy stem. Flowers bloom from May through early July. Fruit is produced in late July through August. The plants die after producing seeds.

**Habitat:** Unlike most invasive exotic plants, Garlic mustard thrives in shady habitats, especially those experiencing periodic disturbance, and spreads quickly along stream corridors. This plant invades moist forests, wooded stream banks, floodplain forests, roadsides, and trail edges. It cannot tolerate extremely acidic soils.

**Threats:** Garlic mustard poses a severe threat to natural areas because of its ability to quickly dominate the ground layer to the exclusion of native plants. Garlic mustard may threaten some butterfly species. Adults of several native butterfly species (*Pieris napi oleracea*, *P. virginianensis*) lay eggs on garlic mustard, but many or all of the larvae die before completing development. Garlic mustard



(Gleason, Henry A. 1952. *New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*, Hofner Press, New York. Vol. 2.)

**Threats continued:** also appears to alter habitat suitability for native birds, mammals, and amphibians, and may affect populations of these species.

**Distribution:** Garlic mustard is native to Europe. In North America, garlic mustard is widely distributed throughout the eastern U.S. and is found from North Carolina to southern Ontario and Quebec. It is found as far west as North Dakota, Kansas, Colorado and Utah. Garlic mustard was possibly brought to North America by early settlers who used it as an edible and medicinal plant, although no supporting evidence exists. It was first reported from Long Island in 1868.

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## Garlic Mustard Mustard family (*Brassicaceae*)

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**Control:** Garlic mustard should be removed from natural areas before it sets seed, as one plant can populate or repopulate a site. It appears to threaten the structure of forest communities, and should be given high management priority as soon as it is observed in or near an important natural area. No method provides 100% control. Successful control methods include burning, pulling by hand, and cutting flowering stems with a scythe or weed whip. Glyphosate herbicides may also be effective.

Garlic mustard spreads only by seed. Because the seed bank is short-lived (two to five years), control methods should be continued for a maximum period of five years to deplete the seed bank.

### References:

Nuzzo, Victoria. 2000. *Element Stewardship Abstract for Alliaria petiolata, Garlic Mustard*. The Nature Conservancy. <http://tncweeds.ucdavis.edu/esadocs/documnts/allipet.rtf>

\*This fact sheet was adapted by permission from The Connecticut Chapter of The Nature Conservancy and the Connecticut Department of Environmental Protection.



For more information about Vermont's invasive exotic plant species or if you would like to know how you can help, please contact:

The Nature Conservancy of Vermont, 27 State Street, Montpelier, VT 05602  
Tel: 802-229-4425

Vermont Department of Environmental Conservation, 103 S. Main St., Bldg. 10 North,  
Waterbury, VT 05671-0408 Tel. 802-241-3777

Vermont Department of Fish and Wildlife, 103 S. Main St., Bldg. 10 South, Waterbury, VT  
05671-0501 Tel. 802-241-3715

Vermont Department of Forests, Parks and Recreation, 103 S. Main St., Bldg. 10 South,  
Waterbury, VT 05671-0601 Tel. 802-241-3678

