

Garlic Mustard

by David Mark

Garlic mustard (*Alliaria petiolata*) is a European plant naturalized to New England and other parts of the United States more than 100 years ago. It is in the mustard family, but the leaves of this sub-species have a mild garlicky smell when torn or crushed.

Garlic mustard is one of the few woodland plants flowering in early May. The plant has a two-year life cycle: close to the ground the first year, then taller and with flower stalks topped with small white flowers the second year. The flower stalks are one to two feet tall, capped in bouquets of four-petaled white flowers in the shape of a cross. The plant prefers full or partial shade to full sun.

The problem with garlic mustard is that it is displacing native woodland species. Invasives, by their nature, do not play well with others. Once transported these species find themselves in a new land not populated by their natural enemies. This plant in particular not only physically displaces native species but is suspected of waging chemical warfare. According to a Michigan State University website "Several compounds isolated from garlic mustard were shown to depress growth of both grasses and herbs in laboratory experiments. Researchers concluded that release of these compounds from garlic mustard root systems might account for its dominance in forest ecosystems. Others have suggested that such compounds might also disrupt mutually beneficial relationships between plant roots and certain fungi in the soil, known as mycorrhizal associations. These fungi are used by most North American forest ground-layer plants and are critical for nutrient and water uptake in many trees."

Garlic mustard is relatively easy to pull up, roots included. Hand pulling, however, is very labor intensive, and can result in soil disturbance, damaging desirable species and putting soil at risk for erosion. An alternative is to cut the plant as close to the soil surface as possible, either with pruning shears or a weedwacker. Pulled plants should not be composted, especially those in seed, as the seeds are resistant to temperatures reached in compost piles and remain viable for years.

David Mark writes for Maynard's Beacon-Villager newspaper. His more recent columns are posted at www.maynardlifeoutdoors.com. Some of Mark's earlier columns were published in November 2011 as a book "MAYNARD: History and Life Outdoors."