

**Common Name:** Garlic mustard

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

**Family:** Mustard Family (Brassicaceae)

**Similar Species:** Large-leafed avens (*Geum macrophyllum*) is commonly mistaken for garlic mustard rosettes. Avens have highly dissected leaves divided all the way to the petiole base.

**Description: Strong garlic odor when crushed.** First year plants are rosettes of dark green kidney shaped leaves arising from a common base with distinct leaf veins and scalloped edges to four inches in diameter. Second year plants with few to several-branched stems to 3 feet tall. Second year plants have triangular leaves alternate on the stem gradually decreasing in size. Flowers white, ¼ in. diameter, with four petals. Plants flower in April-June with siliques produced June-August. Seeds 8-10/pod, shiny-black, cylindrical.

**Life History:** Biennial. Plants overwinter as rosettes. Very tolerant of cool temperatures and low light. One plant may produce several hundred seeds. Seed bank viability is at least 5 years.

**Where Found:** Only known locations in Alaska are in Juneau, on the hill below the Governor's residence, and Auke Village Recreation Site.

**Habitat:** Moist, shaded soil of river floodplains, forests, roadsides, edges of woods and trails edges and forest openings. Disturbed areas are most susceptible to rapid invasion and dominance. Though invasive under a wide range of light and soil conditions,

garlic mustard is associated with calcareous soils and does not tolerate high acidity. Growing season inundation may limit invasion of garlic mustard to some extent.

Illustration: NRCS PLANTS database



**Impacts:** Potential ecosystem impacts in Alaska are unknown, but in deciduous forests of the eastern and Midwestern US, garlic mustard forms dense monospecific stands, outcompeting spring wildflowers that complete their life cycle between spring thaw and trees leafing out. Many impacted species are threatened or endangered. Garlic mustard is regarded as one of the worst invasive plants in much of the lower 48 because of its record of colonizing natural areas.

**Fun Facts:** Juneau residents are fighting an uphill battle (literally) to eradicate this species from Alaska. Garlic

mustard is edible and was often used in soups and salads. It was introduced from Europe, most likely intentionally. Other common names include sauce-alone, jack-in-the-hedge, and poor man's garlic.

Tom Heutte, USDA Forest Service



**Control Options:** Hand pulling is effective because the entire root can be removed if carefully pulled. If the upper half of the root remains in the soil, plants will resprout. Hand pulling is best done in the early spring before other plants overgrow the site making access difficult. Extreme care should be taken to prevent seeds of this plant from being moved from the site, for instance through mud stuck to shoes.



Photo: Glenn Nice, Purdue University

**Herbicide Options:** Glyphosate applied at a 1% rate on dormant rosettes reduced adult plant populations by 95% in one study. Glyphosate is non selective and will harm native species. Damage can be reduced by applying in the early spring when few actively green plants besides garlic mustard can be found in the area. Triclopyr amine (Garlon 3A) applied at 1% killed 95% of rosettes in another test.