

GARLIC MUSTARD

[*Alliaria petiolata* (M. Bieb.)
Cavara & Grande; *A. officinalis* Andr.]
ALPE4



UGA0580063

Habit: Erect, shade-tolerant,⁴ biennial herb.⁸

Reproduction: By seed;⁸ preferentially outcrosses but may self.⁶

Leaves: Lower leaves kidney shaped with palmate venation, 2-12 cm ($\frac{3}{4}$ to $4\frac{3}{4}$ in) long, arranged in a basal rosette that forms the first year and persists through winter; upper leaves alternate, triangular, toothed.^{15,8,4,7}

Stems: Up to about 1 m (3 ft); one flowering stem per rosette, but up to six;^{4,17} may branch.^{8,4,7}

Flowers: Second year; numerous; 5-7 mm ($\frac{1}{4}$ in) in diameter, white, 4-petaled; mostly in a cluster at the top of the stalk but may occur in leaf axils;^{8,4} bloom late April-June;^{15,8} open from bottom to top; remain open for 2-3 days, but produce nectar primarily in day 1; pollinated by medium-sized, short-tongued bees and flies, which visit one or two flowers per plant.⁶

Fruits/Seeds: As many as 3,000 seeds per plant; seeds dark brown to black,^{8,4} enclosed in long (4-7 cm; $1\frac{1}{2}$ - $2\frac{3}{4}$ in), narrow capsules (siliques);^{8,7} dispersed in late summer; cold stratification required to break dormancy;^{2,10} germination best in dark, moist conditions and lower temperatures (1-5°C; 34-41°F); small seed banks are formed; large, persistent seed banks unlikely due to high germination rates² but may be more likely in drier conditions;³ germinants do not compete well with second-year rosettes;^{2,11} animal and water dispersed.⁴

GARLIC MUSTARD



UGA2307232



Alliaria petiolata (M. Bieb.) Cavara & Grande

Habitat: Native to Europe; first U.S. introduction in 1868;¹² in upland or floodplain forest, savannas, roadsides, trail edges, and disturbed areas; shady, mesic areas with alkaline soils^{3,18} but found in high light, xeric areas with acidic soils.^{3,1}

Comments: Nutritious;⁹ rare native butterfly oviposits on it but larvae cannot feed;¹³ herbivory defenses increase with wounding; levels vary among populations;⁵ allelopathic impact documented,¹⁴ possibly via effect on native plant mycorrhizae.¹⁶

Similar Native Species: Basal leaves of *Thaspium*, *Zizia*, *Senecio*, *Viola* spp; similar fruiting structures with several other mustards.⁸