

## Garlic mustard

### *Alliaria petiolata*

#### Description

All parts smell like garlic when crushed, especially in spring and early summer; dominates the ground layer of forests to the exclusion of almost all other herbaceous species; destroys mycorrhizal fungi needed by woody plants for regeneration.

#### Habit

Upright, herbaceous biennial growing up to 1 m (3 ft) tall.

#### Leaves

Simple, alternate, triangular, toothed, lower leaves rounded with cordate bases and palmate venation, up to 12 cm (4.75 in) long, scalloped edges, arranged in a basal rosette, upper leaves stalked.





### **Stems**

Up to about 1 m (3 ft); typically one flowering stem per rosette but may be more.

### **Flowers**

Numerous, small, white in color, 4 petals, usually in clusters at tops of stalks or in leaf axils; bloom late April through early June.

### **Fruits and Seeds**

Small, dark brown/black; in long narrow capsules; one plant can produce up to 3,000 seeds; seeds viable within a few days of flowering and remain viable for many years.

### **Habitat**

Found in upland and floodplain forests, savannas, along trails, roadsides and disturbed areas; shade tolerant but also found in full sun; spreads rapidly.

### **Reproduction**

Prolific seeding, preferentially outcrosses but may self; produces basal rosette the first year, flowers the second year.

### **Similar**

Basal leaves resemble those of golden alexanders (*Zizia aurea*), ragworts (*Senecio* spp.), violets (*Viola* spp.) and buttercups (*Ranunculus* spp.); fruiting structures similar to other mustards; can be distinguished by garlic odor when crushed.

### **Monitoring and Rapid Response**

Monitor forest edges, paths and floodplains. Begin control efforts in highest quality areas; pull seedlings when there only a few - otherwise, focus on second year plants. Pull plants before seed is produced. Remove upper half of root or it may resprout. Tamp soil thoroughly to minimize recolonization and germination. Flower/seed heads must burned or placed in a landfill to prevent seed development. Herbicide can be used in early spring and fall, while native plants are dormant. Continue control efforts until the seed bank is depleted. This species is difficult to control, research control options thoroughly.

### **Credits**

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