

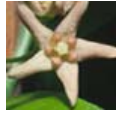


# Invasive Plant Atlas of New England

## Catalog of Species Search Results

### *Alliaria petiolata*

(Garlic mustard )



[:: Catalog of Species Search](#)



[Common Name\(s\)](#) | [Full Scientific Name](#) | [Family Name Common](#) | [Family Scientific Name](#) | [Images](#) | [Synonyms](#) | [Description](#) | [Similar Species](#) | [Reproductive/Dispersal Mechanisms](#) | [Distribution](#) | [History of Introduction in New England](#) | [Habitats in New England](#) | [Threats](#) | [Early Warning Notes](#) | [Management Links](#) | [Documentation Needs](#) | [Additional Information](#) | [References](#) | [Data Retrieval](#) | [Maps of New England Plant Distribution](#)

### COMMON NAME

Garlic mustard

### FULL SCIENTIFIC NAME

*Alliaria petiolata* (Bieb.) Cavara and Grande

### FAMILY NAME COMMON

Mustard family

### FAMILY SCIENTIFIC NAME

Brassicaceae

### IMAGES



View of plant



Late seedlings



Basal rosette



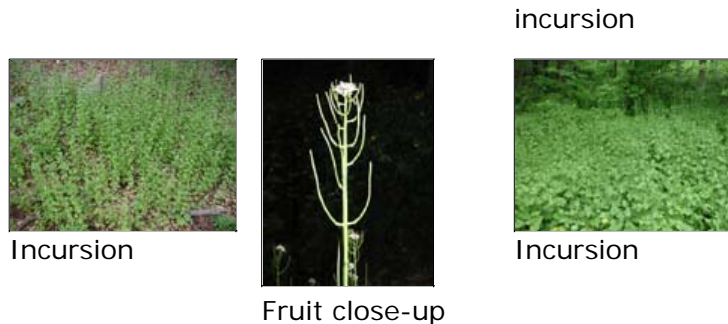
Early seedlings



Inflorescence



Understory



## NOMENCLATURE/SYNONYMS

**Synonyms:** *Alliaria officinalis* Andrz. ex Bieb.

## DESCRIPTION

### Botanical Glossary

*Alliaria petiolata* is an herbaceous biennial whose flowering form can reach 1 m (3.3 ft.) in height. The first year plants are a basal rosette of leaves that remain green throughout the winter. They develop into mature flowering plants the following spring. The lower, dark green leaves are reniform (kidney-shaped), while the stem leaves are alternate and deltoid. The basal leaf blades can be 6-10 cm (2.4-4 in.) long and wide, while the stem leaves are 3-8 cm (1.2-3.1 in.) long and wide, gradually decreasing in size as they go up the stem. The margins of the leaves are coarsely toothed. The leaves give off a strong garlic odor when crushed.

The flowers of *Alliaria petiolata* are consistent with those of the mustard family. That is, there are four white petals arranged in a cross shape, and these are 5-6 mm (0.25 in.) in diameter. The flowers are arranged in terminal racemes. They appear in the early spring (April-May), and fruits are produced by May. The cylindrical, shiny, black seeds are 3 mm (0.1 in.) in size and are contained in pods called siliques. These siliques are 2.5-6 cm (1-2.4 in.) long and 2 mm (0.08 in.) wide and contain 10-20 seeds. By June the plants are dead, often with the fruits still attached.

Page References Gleason & Cronquist 197, Holmgren 180, Magee & Ahles 558. See reference section below for full citations.

## SIMILAR SPECIES

None.

## REPRODUCTIVE/DISPERSAL MECHANISMS

*Alliaria petiolata* is mechanically dispersed. It is still not known exactly how the plant moves over long distances.

## DISTRIBUTION

*Alliaria petiolata* is native to Europe, where it can be found from England to the Czech and Slovak Republics, Sweden, Germany and south to Italy. It has also been reported from Canada. In the United States it can be found from Maine to South Carolina, West to Minnesota, Iowa, Arkansas, Oklahoma, Utah, Washington and Oregon. It has been reported from all New England States.

## HISTORY OF INTRODUCTION IN NEW ENGLAND

*Alliaria petiolata* was first collected in Long Island in 1868. In New England it was first collected in Chester, Connecticut in 1897. It is likely that settlers planted it in the United States for food and medicinal purposes. It was probably introduced into New England by planting as well, and then it dispersed across the landscape.

## HABITATS IN NEW ENGLAND

Abandoned Field  
Early Successional Forest  
Edge  
Floodplain Forest  
Late Successional Forest  
Planted Forest  
Roadside  
Vacant Lot  
Wet Meadow  
Yard or Garden

*Alliaria petiolata* is successful in many types of habitats. It prefers moist, shaded areas, but can grow well at roadsides, edges of woods, along trails and in forest openings. Because of its shade tolerance it is one of few invasives that can be present and dominate a forest understory.

## THREATS

*Alliaria petiolata* can outcompete native herbaceous species, depriving them of light, moisture and space. It also negatively impacts mycorrhizal fungi that are important underground symbionts for northern hardwood species, allowing it to compete with these woody species. In some states this plant threatens native butterfly species by outcompeting their native host plants. When the butterflies lay their eggs on *Alliaria petiolata* the larvae do not seem to survive as well. The seeds of *Alliaria petiolata* usually fall just beneath the plant, but it is probably dispersed longer distances by people when seeds get attached to boots and clothing.

## MANAGEMENT LINKS

[Illinois Natural History Survey](#)

General description and management guidelines

[The Nature Conservancy](#)

[The Connecticut Invasive Plant Working Group Invasive Plant Management Guide](#)

Comprehensive management information

[Plant Conservation Alliance](#)

Fact sheet with management information

[University of Wisconsin weed science](#)

## DOCUMENTATION NEEDS

Documentation required: Photograph of habit, flowers, basal leaves.  
Best time for documentation: Spring, early summer.

## ADDITIONAL INFORMATION

[Integrated Taxonomic Information System](#)

Taxonomic information

[PLANTS database](#)

Distribution, general information and links

[Plant Conservation Alliance](#)

Fact sheet

[National Invasive Species Information Center](#)

General information and many links

[Adirondack Park Invasive Plant Program](#)

Identification, fact sheet, management and distribution information in the Adirondack Park

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## DATA RETRIEVAL

Select a task by clicking the radio button and then click "Subm Selection."

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## MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

Select a study area by clicking the radio button and then click "Submit Selection."

- The whole New England area
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