

Invasive Species in Coastal Areas

SUMMER 2000

Garlic Mustard (*Alliaria petiolata*) threatens the Huron Fringe Forest

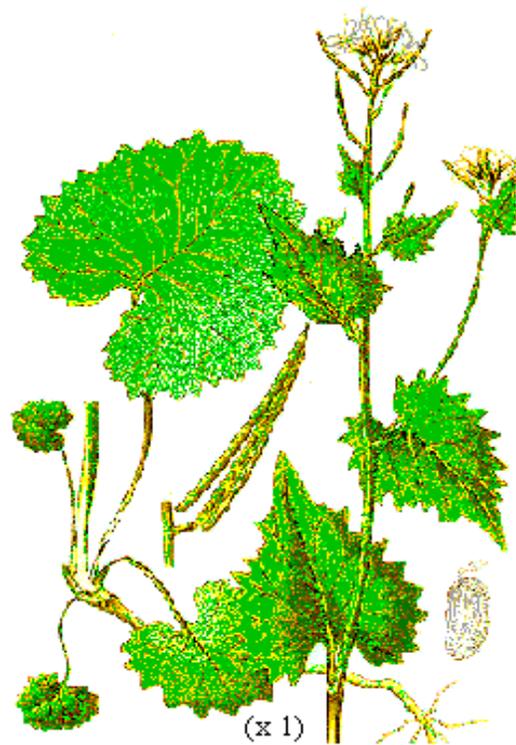
Garlic mustard is considered to be one of the most invasive exotic plants in Canada. It thrives in rich, moist upland forests and wooded streambanks. It is shade tolerant, and readily invades deciduous woodlands, hedgerows, disturbed areas such as roadsides, trail edges and gardens.

This plant is one of the most rapidly expanding invasive plants of woodland habitats in eastern Canada. Its ability to form dense monocultures affects indigenous wildflower populations. Once garlic mustard moves into an area, it steals away available light, water and space from plants like wild ginger, bloodroot, toothworts, trilliums, and other native flowers, as well as choking out forest understory growth. Without sufficient understory growth to replace the existing forest, the long term health of the forest is threatened.

Garlic mustard is one of the threats that has placed two species of woodland plants, designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), at risk. Both the wood poppy (endangered), and the wood aster (threatened) are at stake. But it's not just flowers – garlic mustard is also toxic to butterflies, which perform important functions in the ecosystem, like plant pollination. The Huron Fringe Forest (the band of forested area that runs parallel to the Lake Huron shoreline) has shown signs of invasion by garlic mustard.

Garlic mustard is a biennial herb in the mustard family. Plants can range in height from 15 centimeters to over one meter in height. The first year plants form rosettes of kidney-shaped leaves which winter as an evergreen. In its second year, the plant grows a stem

with leaves that are triangular and sharply toothed. Four petalled white flowers form at the end of the stem. Seeds are black, oblong and found in rows within a long narrow capsule called a silique. Seed dispersal is primarily through human activities and other animals. Seed production can exceed 62,000 per square meter. Seeds are dormant at maturity and require a cold period to germinate. Seeds can germinate up to six years after production. Crushed leaves and stems of this plant give off a distinctive garlic



Garlic Mustard (*Alliaria petiolata*)

odour.

This species is a European native that was likely deliberately introduced by early settlers because of the plants perceived medicinal value.

Control

Light infestations of garlic mustard can be controlled by hand pulling. Plants should be pulled before seeds have ripened. Care must be taken that the entire root is removed and disturbance to the soil is minimal. **Do**

not compost this plant. Seeds can remain dormant in the compost and re-germinate in your garden.

In extreme cases, spot application of a glyphosate formulation (e.g. Roundup) has been cited as effective, provided certain precautions are observed. The best times of application are early spring and late fall. Since the plant sprouts early in the spring and the first year rosettes remain green throughout winter, it can be effectively killed by spot application at a time when most indigenous plants are dormant.



First year rosettes



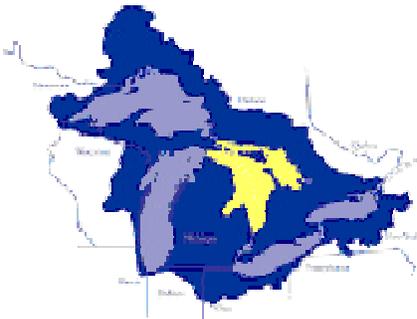
Second year growth



Flowering plant

Information Sources:

*Invasive Plants of Canada Project
Canadian Wildlife Service*



For more information contact:



P.O. Box 178
Blyth, Ontario, Canada
N0M 1H0

(519) 523-4478

www.lakehuron.on.ca