DEDHAM'S LEAST WANTED!

Garlic Mustard, *Alliaria petiolata*

Origin: This plant's native range is Europe. Garlic mustard was first recorded in the United States around 1868, from Long Island, New York. It was likely introduced by settlers for food or medicinal purposes.

Identification / Habitat: Garlic mustard is a cool season biennial herb in the mustard family with triangular to heart-shaped, coarsely toothed leaves that give off an odor of garlic when crushed. First-year plants appear as a rosette of green leaves close to the ground. Rosettes remain green through the winter and develop into mature flowering plants the following spring. Flowering plants are 2 to 3 feet in height and have small white 4-petaled flowers. By late June, most of the leaves have faded away and garlic mustard plants can be recognized only by the dead and dying stalks of dry, pale brown seedpods that may hold viable seed throughout the summer.

Dispersal: A single plant can produce thousands of seeds, which scatter as much as several meters from the parent plant. Depending upon conditions, garlic mustard flowers either self-fertilize or are cross-pollinated by a variety of insects. Self-fertilized seed is genetically identical to the parent plant, enhancing its ability to colonize an area.

Problems: Garlic mustard poses a severe threat to native plants and animals in forest communities. Many native wildflowers that complete their life cycles in the springtime, such as spring beauty, wild ginger, bloodroot, Dutchman's breeches, hepatica, toothwort, and trilliums, occur in the same habitat as garlic mustard. Once established, garlic mustard out competes native plants by aggressively monopolizing light, moisture, nutrients, soil and space. Wildlife species that depend on native plants for their foliage, pollen, nectar, fruits, seeds and roots, are deprived of these essential food sources when garlic mustard replaces them.

Garlic mustard also poses a threat to one of our rare native insects, the West Virginia white butterfly (*Pieris virginiensis*). Several species of spring wildflowers known as "toothwort" (*Dentaria*), also in the mustard family, are the primary food source for the caterpillar stage of this butterfly. Invasions of garlic mustard are causing local extirpations of the toothwort, and chemicals in garlic mustard appear to be toxic to the eggs of the butterfly, as evidenced by their failure to hatch when laid on garlic mustard plants.

Control: Hand removal of plants is possible for light infestations and where native species co-occur with it. When the soil is moist, firmly grasp the plant low and tug gently until the main root loosens from the soil and the entire plant pulls out. Remove the plant with its entire root system or new plants may sprout from root fragments. Remove completely from the site and dispose of in garbage bags or at the town composting site.

Any removal within 100 feet of wetland resource areas, including certified vernal pools, or within 200 feet of a perennial stream will require approval from the Dedham Conservation Commission. Please contact the Conservation Department before you begin!

Dedham Conservation Department ~ 781-751-9210 ~ 26 Bryant Street