

## wall lettuce

### *Mycelis muralis* (L.) Dumort.

Synonyms: *Lactuca muralis* (L.) Fresen., *Prenanthes muralis* L.

Common name: None

Family: Asteraceae

**Invasiveness Rank:** 31 The invasiveness rank is calculated based on a species' ecological impacts, biological attributes, distribution, and response to control measures. The ranks are scaled from 0 to 100, with 0 representing a plant that poses no threat to native ecosystems and 100 representing a plant that poses a major threat to native ecosystems.

#### Description

Wall lettuce is a slender, glabrous herb that behaves as an annual on frequently disturbed substrates and as a biennial on more stable substrates. Single or multiple stems rise out of fibrous roots. Stems are erect, 61 to 91 cm tall, and branched above. The stem surface is glabrous, often glaucous, and exudes milky juice when broken. Basal and lower stem leaves are 6 ¼ to 17 ¾ cm long, 2 ½ to 7 ½ cm wide, smooth, and pinnately lobed. Lobes have broad, terminal segments and earlike, clasping flanges at the leaf base. Middle and upper stem leaves are few and reduced. Flower heads are composed of five strap-shaped, yellow ray flowers. Seeds are approximately 4 mm long, several-nerved, and black or brown with white pappi (Cronquist 1955, Douglas et al. 1998). Plants die back after flowering but produce an overwintering rosette (Clabby and Osborne 1999).



*Mycelis muralis* (L.) Dumort.

**Similar species:** Wall lettuce is unlikely to be mistaken

for any other ray-flowered composite species in Alaska, with the possible exception of *Lactuca* species. Unlike wall lettuce, *Lactuca* species have spiny projections on the undersides of their leaf ridges.

#### Ecological Impact

**Impact on community composition, structure, and interactions:** A number of insects and parasites are associated with wall lettuce. Wall lettuce has documented relationships with mycorrhizal fungi. The production of latex by wall lettuce may discourage herbivory.

**Impact on ecosystem processes:** Wall lettuce is an early successional species with low cover value (Clabby and Osborne 1999). It likely has minimal impact on ecosystem processes.

#### Biology and Invasive Potential

**Reproductive potential:** Wall lettuce reproduces exclusively by seeds. A single plant can produce up to 500 seeds in shaded sites and up to 11,500 seeds in open sites. In laboratory experiments, dry seeds stored in a refrigerator remained viable for at least 3 years. Seeds stored at room temperature lost viability after 2 years (Clabby and Osborne 1999).

**Role of disturbance in establishment:** Wall lettuce establishes mainly in habitats that are associated with natural or anthropogenic disturbances, such as storms, fires, and logging (Clabby and Osborne 1999).

**Potential for long-distance dispersal:** Each seed has a pappus and can be dispersed long distances by wind (Douglas 1955).

**Potential to be spread by human activity:** The potential for wall lettuce to be dispersed by humans is unknown.

**Germination requirements:** Both newly shed and overwintering seeds germinate readily. Germination may be inhibited by darkness.

**Growth requirements:** Wall lettuce can grow in deep shade or full sun (Clabby and Osborne 1997). It is adapted to a wide range of soil conditions, including mineral and humus-rich soils with pH ranging from 3.5 to 7.8. Wall lettuce grows in areas that have an average annual rainfall exceeding ½ meter. It is resistant to frost and drought. In Europe, the northern and southern limits

for the range of this species follow the -7°C mean January and 25°C mean July isotherms, respectively (Clabby and Osborne 1999).

*Congeneric weeds:* The genus *Mycelis* is monotypic (USDA 2002).

### Legal Listings

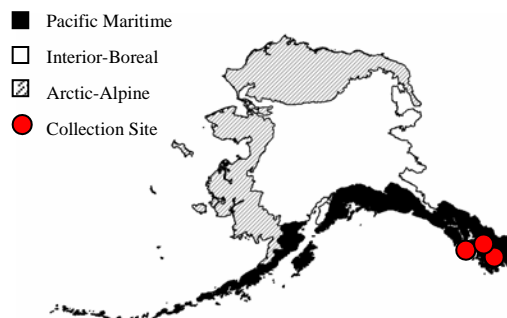
- Has not been declared noxious
- Listed noxious in Alaska
- Listed noxious by other states
- Federal noxious weed
- Listed noxious in Canada or other countries

### Distribution and abundance

Wall lettuce is a species of moist to mesic forests in lowland and montane zones. It is commonly found in open woods, wood margins, and woodland clearings, but it can also be found in scrub, on cliffs, and on rocky outcrops (Cronquist 1955, Douglas et al. 1998, Clabby and Osborne 1999).

*Native and current distribution:* Wall lettuce is native to most of temperate, continental Europe. Its distribution extends eastward to Turkey and the Caucasus Mountains and northward to Norway at 68.5° N. Wall

lettuce has been introduced to North Africa, North America, and New Zealand. In Alaska, wall lettuce has been reported from Ketchikan, Wrangell, and Kuiu Island (AK Weeds Database 2004).



Distribution of wall lettuce in Alaska

### Management

Control options have not been investigated. Wall lettuce may be susceptible to grazing (Clabby and Osborn 1999). Kellman (1974) suggested that wall lettuce will not persist on sites with established perennials.

### References:

- AK Weeds Database. 2004. Database of exotic vegetation collected in Alaska. Available: <http://akweeds.uaa.alaska.edu/>
- Clabby, G. and B.G. Osborne. 1997. Irradiance and nitrate-dependent variation in growth and biomass allocation of *Mycelis muralis*. An analysis of its significance for a functional categorization of 'sun' and 'shade' plants. *New Phytologist* 135(3): 539-545.
- Clabby, G. and B.A. Osborne. 1999. Biological flora of the British Isles. *Mycelis muralis* (L.) Dumort. (*Lactuca muralis* (L.) Gaertner. *Journal of Ecology* 87: 156-172.
- Cronquist, A. 1955. *Lactuca* L. Lettuce. In: Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1955. Vascular plants of the Pacific Northwest. Part 5: Compositae. Seattle and London: University of Washington Press. 343 p.
- Douglas, G. W., G. B. Straley, D. Meidinger, J. Pojar. 1998. Illustrated flora of British Columbia. V. 2. Ministry of Environment, Lands and Parks Ministry of Forests. British Columbia. 401 pp.
- eFloras. 2008. Published on the Internet <http://www.efloras.org> [accessed 23 September 2010]. Missouri Botanical Garden, St. Louis, MO & Harvard University Herbaria, Cambridge, MA.
- Invaders Database System. 2010. University of Montana. Missoula, MT. <http://invader.dbs.umt.edu/>
- Kellman, M. 1974. Preliminary seed budgets for two plant communities in coastal British Columbia. *Journal of Biogeography* 1(2): 123-133.
- USDA (United States Department of Agriculture), NRCS (Natural Resource Conservation Service). 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.