

leporinum barley

Hordeum murinum ssp. *leporinum* (Link) Arcang.

Synonyms: *Critesion murinum* ssp. *leporinum* (Link) A. Löve, *Hordeum leporinum* Link

Other common names: lepor barley, rabbit barley, hare barley

Family: Poaceae

Invasiveness Rank: 60 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

Leporinum barley is an annual grass with glabrous culms that grow up to 26 cm tall. Auricles are well developed on most leaves and can be up to 2 mm long. Leaf blades are smooth to hairy and 2 to 6 mm wide. The spike is well exerted to partially enclosed by the inflated upper sheath. It ranges from 13 mm to 10 cm long and has awns that are 6 to 25 ½ long (Hitchcock et al. 1969, Whitson et al. 2000).



Hordeum murinum ssp. *leporinum* (Link) Arcang. Photo by C. Witham.

Similar species: Foxtail barley (*Hordeum jubatum* L.) grows in Alaska but can be distinguished from leporinum barley by its lack of auricles.

Ecological Impact

Impact on community composition, structure, and interactions: Leporinum barley can invade pastures and dominate native forbs and grasses (Cocks and Donald 1973, Govey et al. 2003). The awns of mature plants can cause serious injury to the eyes, noses, and throats of grazing animals (Klott 1981, Warr 1981, Whitson et al. 2000).

Impact on ecosystem processes: The impact of leporinum barley on ecosystem processes is unknown.

Biology and Invasive Potential

Reproductive potential: Leporinum barley reproduces by seeds, which are produced in great number (Halloran and Pennell 1981).

Role of disturbance in establishment: Leporinum barley establishes easily on land that has been regularly grazed and trampled. It becomes dominant as the intensity of grazing increases (Groves et al. 2003).

Potential for long-distance dispersal: Seeds are dispersed by mammals after attaching to fur (Cocks and Donald 1973).

Potential to be spread by human activity: Seeds can become entangled in and be transported with commercial wool. They have been documented as contaminants in commercial seed and hay (Cocks and Donald 1973, Klott 1981, USDA, ARS 2005).

Germination requirements: Leporinum barley is capable of germinating early and rapidly. In Australia, germination occurs at constant temperatures ranging from 8°C to 32°C, with optimum temperatures between 17° and 24° F. The effect of large diurnal temperature swings on germination was insignificant. Leporinum barley germinates and establishes better on sand than on loam (Cocks and Donald 1973, Piggitt et al. 1973, Popay 1981).

Growth requirements: Leporinum barley grows on a wide range of soil types and tolerates extremely high nutrient levels (Groves et al. 2003).

Congeneric weeds: Foxtail barley (*Hordeum jubatum*), little barley (*H. pusillum*), and common barley (*H. vulgare*) are considered weeds in the United States (Whitson et al. 2000, 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

In Europe, leporinum barley is found mainly in open vegetation along roadsides, on the margins of cultivated fields, and around buildings. In Australia, the grass occupies annual pastures, while in New Zealand it is a greater problem in sheep pastures and alfalfa crops (Davison 1971).

Native and current distribution: Leporinum barley is native to Central Europe, North Africa, western Asia, and the Caucasus region (USDA, ARS 2005). It has naturalized in North America, South America, Australia, and New Zealand (Davison 1971, Halloran and Pennell 1981). Leporinum barley has been collected from disturbed sites in the Matanuska and Susitna valleys in Alaska (AKEPIC 2010).

- Pacific Maritime
- Interior-Boreal
- ▨ Arctic-Alpine
- Collection Site



Distribution of leporinum barley in Alaska.

Management

Grazing, mowing, and herbicides can be used to reduce leporinum barley infestations in pastures. Leporinum barley is known to be strongly resistant to a number of herbicides (Klott 1981, Stephenson 1993).

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