

## common pepperweed

*Lepidium densiflorum* var. *densiflorum* Schrad.

## tall pepperweed

*Lepidium densiflorum* var. *elongatum* (Rydb.) Thellung.

### Introduction

Two poorly differentiated varieties of *Lepidium densiflorum* are recorded in Alaska: common pepperweed (*Lepidium densiflorum* var. *densiflorum*) and tall pepperweed (*Lepidium densiflorum* var. *elongatum*). Both are considered together here as common pepperweed (*Lepidium densiflorum*).

Synonyms for *Lepidium densiflorum* var. *densiflorum* Schrad.: *L. densiflorum* var. *typicum* Thellung, *L. neglectum* Thellung, *L. texanum* Buckl.

Other common name: common peppergrass, miner's pepperwort

Synonyms for *L. densiflorum* var. *elongatum* (Rydb.) Thellung.: *Lepidium elongatum* Rydb.

Other common names: none

Family: Brassicaceae

**Invasiveness Rank:** 25 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

Common pepperweed is an annual herb that grows up to 46 cm tall from a slender taproot. Stems are erect and branched above with fine, simple hairs. Basal leaves are arranged in rosettes. They are stalked, 2 ½ to 10 cm long, and usually toothed to deeply lobed. Stem leaves are alternate with smooth margins and no stalks. Flowers grow on elongate racemes. They are small and inconspicuous. Each flower is composed of four green sepals and lacks petals. Fruits are flattened, round to heart-shaped, small, up to 3 mm long, and slightly notched at the tip with papery margins. Each fruit contains two seeds (Douglas et al. 1998, Royer and Dickinson 1999).

*Similar species:* Gardencress pepperweed (*L. sativum*) can be distinguished from common pepperweed by the presence of narrowly dissected leaves, reddish-white petals, and fruits that are over 6 mm long (Douglas et al. 1998, Royer and Dickinson 1999).



Foliage of *Lepidium densiflorum* Schrad. Photo by M. Harte.



Fruits of *Lepidium densiflorum* Schrad. Photo by M. Harte.

## Ecological Impact

*Impact on community composition, structure, and interactions:* Common pepperweed establishes in open disturbed sites in Alaska (UAM 2003, AKEPIC 2010). No impacts on native populations have been documented.

*Impact on ecosystem processes:* Common pepperweed has little or no effect on natural ecosystem processes (Densmore et al. 2001).

## Biology and Invasive Potential

*Reproductive potential:* Common pepperweed reproduces by seeds only. Each plant can produce up to 5,000 seeds (Royer and Dickinson 1999).

*Role of disturbance in establishment:* Infestations of common pepperweed are usually associated with anthropogenic disturbances. Plants may appear on sites of previous human use, particularly when the soil is disturbed by construction or trampling (Densmore et al. 2001).

*Potential for long-distance dispersal:* At maturity, stems can break off from the bases and tumble in the wind, spreading seeds (Rutledge and McLendon 1996).

*Potential to be spread by human activity:* Common pepperweed is a weed of cultivated crops and can be spread as a contaminant in commercial seed (USDA 2010).

*Germination requirements:* Common pepperweed requires disturbance and open soil to germinate (Densmore et al. 2001).

*Growth requirements:* Common pepperweed grows best in light, sandy soils (Rutledge and McLendon 1996).

*Congeneric weeds:* Field pepperweed (*Lepidium campestre*), perennial pepperweed (*L. latifolium*), clasping pepperweed (*L. perfoliatum*), and roadside pepperweed (*L. ruderale*) are known to occur as non-native weeds in North America (Royer and Dickinson 1999, USDA 2010). Perennial pepperweed is considered a noxious weed in British Columbia and 13 states of the U.S. (Invaders 2010).

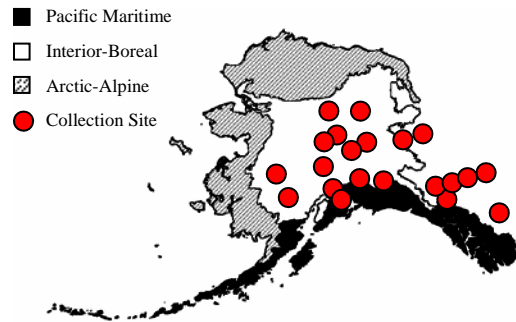
## Legal Listings

- 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

Common pepperweed grows in disturbed areas, roadsides, waste areas, farmyards, and cultivated fields (Welsh 1974, Royer and Dickinson 1999).

*Native and current distribution:* Common pepperweed is native to North America, but may have been introduced recently into Alaska and Yukon (Hultén 1968, Cody 2000). Common pepperweed grows in Canada, the U.S., and Europe (Hultén 1968). This species has been documented from the Pacific Maritime and Interior-Boreal ecogeographic regions of Alaska (Hultén 1968, UAM 2003, AKEPIC 2010).



Distribution of common pepperweed in Alaska

## Management

Common pepperweed can be controlled easily by hand pulling or herbicide applications. Due to the large, long-lived seed banks, several treatments may be necessary to completely remove populations (Densmore et al. 2001).

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