

## Common chickweed

### *Stellaria media* (L.) Vill.

Synonyms: None

Other common names: chickweed, nodding chickweed

Family: Caryophyllaceae

#### Description

Common chickweed is an annual or winter annual, mat-forming plant up to 12 inches tall. Stems are prostrate, rooting at the nodes, usually with a single line of hairs along each internode. Leaves are opposite, egg-shaped to elliptic, up to 1½ inch long; hairy. The lower leaves are stalked, but the upper leaves are stalkless. The small, white, star-shaped flowers have 5 petals that are so deeply cleft they appear as 10. The capsules are egg-shaped, straw colored and up to ¼ inches long. The capsule contains many tiny reddish brown seeds (Douglas and MacKinnon 1998, Hultén 1968, Sobey 1981, Whitson et al. 2000).



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There are several native species of *Stellaria* in Alaska. Common chickweed is distinguished from other *Stellaria* species by having lower leaves with stalks and the line of hairs along the internodes. Exotic mouse-ear chickweed (*Cerastium fontanum*) is similar mat-forming weed, but it differs in being more or less hairy all over and its flowers have notched (not deeply cleft) petals (Douglas and MacKinnon 1998, Hultén 1968, Whitson et al. 2000).

#### Ecological Impact

*Impact on community composition, structure, and interactions:* Common chickweed is able to create dense mats of shoots up to 12 inches long, shading young seedlings of other plants (Turkington et al. 1980). The shoots and seeds of common chickweed

are eaten by many animals and birds, both domesticated and wild. Many insect species feed on the plant (Batra 1979, Firbank and Smart 2002, Watson et al. 2003). A large number of nematode species have been reported to attack chickweed (Taylor 1967, Townshend and Davidson 1962, Murant 1970). This plant is also an important host for a number of viruses and fungal species. The flowers of common chickweed are usually self-pollinated, however, cross-pollinating by insects has been recorded. Common chickweed is reported to contain poisonous glycosides and high nitrate levels (Case 1957, Sobey 1981).

*Impact on ecosystem process:* The impact of common chickweed on ecosystem processes is unknown.

#### Biology and Invasive Potential

*Reproductive potential:* Common chickweed reproduces mainly by seeds. Seed output per plant can be from 600 to 15 000 (Lutman 2000, Stevens 1957, Stevens 1932). Vegetative reproduction by fragmentation of stems can also occur (Sobey 1981).

*Role of disturbance in establishment:* Common chickweed occurs and persists on disturbed lands with both continual or periodic soil disturbances. Chickweed is relatively quickly replaced by perennial plants if the disturbance ceases (Sobey 1981).

*Potential for long-distance dispersal:* Seeds can be transported by horses, cattle, deer, pigs, sparrows, quail, and gulls (Gillham 1956, Sobey and Kenworthy 1979). It is also known to be dispersed by ants and earthworms. Seeds are also capable of surviving immersion in sea water (Sobey 1981).

*Potential to be spread by human activity:* Seeds can be transported in mud and dust on boots, animal hooves and machinery. Seeds of chickweed also contaminate some commercial seeds, horticultural stock and topsoil (Hodkinson and Thompson 1997, Sobey 1981, Turkington et al. 1980).

*Germination requirements:* Germination of chickweed occurs throughout the year, with distinct peaks in spring and autumn. Optimum depth for germination is ¼ to ½ inches, with very few seeds germinating at depths greater than 1 inch (Sobey

1981). The optimum constant temperature for germination appears to be in the range from 54°F to 68°F. Inhibitory of germination occurs when the temperature exceeds 86°F. Alternation of temperature enhances germination (Roberts and Lockett 1975).

**Growth requirements:** Common chickweed is found in a wide variety of habitats and soil textures. Soil pH ranges from 4.8 to 7.3. It prefers soil with high level of nitrogen supply. Chickweed can readily tolerate very low temperatures, and can even flower and fruit under a snow cover at temperatures as low as -16°F (Lyre (1957) cited in Sobey 1981). Chickweed is notably sensitive to drought (Roberts and Dawkins 1967).

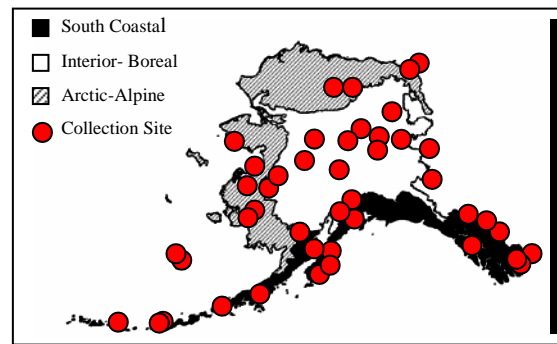
**Congeneric weeds:** A number of *Stellaria* species has been introduced into the United States, however none of them are listed as a noxious weed (USDA, NRCS. 2006).

**Listing:** *Stellaria media* is listed as a noxious weed in Alberta, Manitoba, and Quebec (Rice 2006).

### Distribution and abundance

**Native and current distribution:** Chickweed is native to Europe. It has been spread throughout the world and became one of the most completely cosmopolitan species. It extends from the tropical regions of Africa, South America and Asia to Arctic and sub-Antarctic islands (Hultén 1968, Polunin 1957). In its native range common chickweed is a plant of coastal banks and cliffs, especially in and around the breeding

colonies of sea-birds and seals. However, it is more often found on cultivated ground and waste places (Douglas and MacKinnon 1998, Sobey 1981, Welsh 1974, Whitson et al. 2000).



### Management

Mechanical methods can manage chickweed effectively, but all plant fragments should be removed or deeply buried in the soil, since plant shoots have the ability to re-root, if partially covered by soil. Common chickweed can be controlled by a variety of chemicals; however, it is resistant to a number of commonly used herbicides. Strong perennials can be used to prevent chickweed reestablishment (Guide to weeds in British Columbia. 2002, Sobey 1981).

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