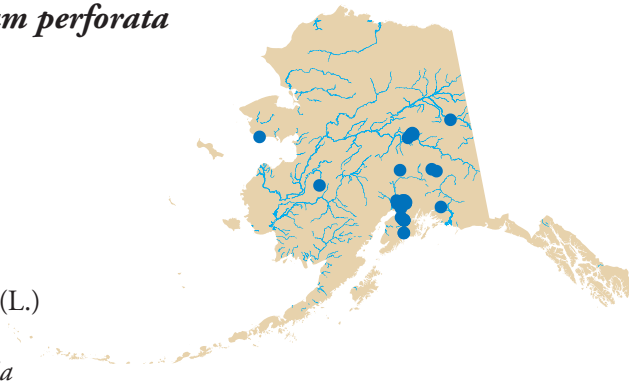
Scentless False Mayweed

Tripleurospermum perforata
(Merat) M. Lainz



Alternate Names

Scentless mayweed
German chamomile

Synonyms

Chamomilla inodora (L.) Gilib., *Matricaria inodora* L., *Matricaria maritime* L. var. *agrestis* (Knaf) Wilmott, *Matricaria maritima* L. ssp. *inodora* (L.) Clapham, *Matricaria perforata* Merat, *Tripleurospermum inodorum* (L.) Schultz-Bip.

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Description

Scentless false mayweed is an annual to perennial forb with an extensive fibrous root system. Stems are highly branched and normally over 3 feet tall. Leaves are alternate, 1–3 inches long, and divided into numerous narrow, thread-like, branched segments. Leaves are more or less odorless when crushed. Numerous flowerheads are produced from June to September. The flowerhead disc measures 1–1½ inches in diameter and is yellow, with white ray florets that are ⅜–1½ inches long. Both types of florets are capable of producing seed. The mature seeds have three distinctive ridges.

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Similar Species

False mayweed (*T. maritima* (L.) W.D. J. Koch ssp. *phaeocephalum* (Rupr.) Hamet-Ahti) is native to

the shores of the Bering and Beaufort Seas in Alaska. The involucral bracts of the native species have dark brown margins while those of the introduced species have light brown margins. Scentless false mayweed could also be confused with two other exotic species, stinking mayweed (*Anthemis cotula* L.) and wild chamomile (*Matricaria recutita* L.), but can be distinguished by its lack of strong odor.

Ecological Impact

Scentless false mayweed seedlings can form very dense stands upon emerging in the spring, thereby reducing seedling growth among other species (NAPPO 2003). This plant is unpalatable to animals, and thus reduces the quality of forage sites in dense stands (Parchoma 2004, CWMA 2000). Scentless false mayweed is pollinated by bees and flies (Harris and McClay 2003). It is likely to alter soil moisture and nutrient availability for other species.

Biology and Invasive Potential

Scentless false mayweed reproduces entirely by seeds. Solid stands of scentless false mayweed can produce 1,800,000 seeds per square meter. Seedbanks can be long-lived, with buried seeds remaining viable for at least 15 years (Juras et al. 2004). Scentless false mayweed is often associated with disturbed habitats where there is little competition from

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established vegetation. Periodic disturbance by cultivation, livestock trampling, or flooding promotes the establishment of scentless false mayweed (Juras et al. 2004). Seeds lack pappus or other morphological adaptations for long-distance dispersal but can spread by wind, water, and drifting snow (Juras et al. 2004, Parchoma 2004). Up to 26% of seeds remain viable in dung (NAPPO 2003, Rutledge and McLendon 1996). Seeds are transported with vehicles, contaminated forage, and grain and grass seed (Juras et al. 2004, Parchoma 2004). Seeds are able to germinate under a wide range of temperature and moisture conditions. Most germination occurs at daily temperature from 36.5° to 104°F. Seeds floating on water germinate readily. Germination occurs better under a canopy than on barren soil (Juras et al. 2004). This weed is found in a range of soils including clay, loam, and sand with pH levels ranging from 5.5 to 7.9. It prefers moist organic soils and does not tolerate calcareous soils (Rutledge and McLendon 1996). Scentless false mayweed is listed as noxious in Washington and Saskatchewan. It is considered a weed in Alberta, British Columbia, Manitoba, and Quebec.

Distribution and Abundance

Outside of Alaska, scentless false mayweed is found in perennial forage crops, pastures, lawns, gardens, and waste areas and also along roadsides, irrigation ditches, shorelines, streams, and pond edges (Juras et al. 2004, Parchoma

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2004). In Alaska, it appears to be restricted to areas with recent anthropogenic soil disturbance and little organic soil. The species is native to northern and central Europe and has been introduced to North America and Asia. It can be found in 26 of the northern United States and in all Canadian provinces (NRCS 2005, Juras et al. 2004, NAPPO 2003).

Management

Scentless false mayweed is tolerant of many herbicides. A combination of mowing, tillage, and hand-pulling can be used to control this plant. Biological agents have been released in British Columbia to control this species (Juras et al. 2004, Parchoma 2004), but the presence of a native plant in Alaska of the same genus limits the probability of biological control here. According to Harris and McClay (2003), this species tends to occupy recently disturbed sites and does not persist without further disturbance, suggesting that control is seldom necessary.

Notes

Scentless false mayweed originated in Europe. It is found in nearly all crops and particularly cereals. Studies of lentil, mustard, and wheat grain suggest that contaminated grain may be an important dispersal mechanism for this weed.