

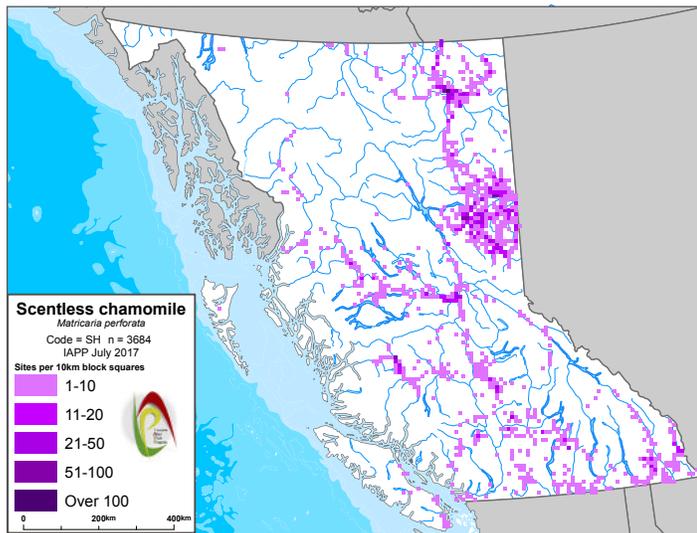
Scentless Chamomile *Matricaria maritime*

Legal Status

Invasive Plants Regulation, Forest and Range Practices Act;
Noxious Weed (Provincial), BC Weed Control Act

Distribution

Currently found in all regions of BC, but is a major concern in the Kootenay, Okanagan, Peace River, and Thompson areas.



Identification

Flowers: Single, white, daisy-like flowers with yellow centers at the ends of each branched stem. Flowers are 2-3 cm in diameter and odourless (scentless) when crushed. Numerous flower head bracts are arranged in overlapping rows and receptacles lack scales.

Stems: Mature plants are 0.15-1 m in height. Stems are erect to semi-erect, smooth, and branched. Mature plant tends to be bushy when not subjected to competition.

Leaves: Stem leaves are usually smooth, alternate, and finely divided (fern-like) into short, thread-like segments. Basal leaves are transient and usually disappear by flowering time. Leaves odourless when crushed.

Fruits: Seeds are dark brown, 2 mm in length, rectangular; have 3 prominent wing-like ribs on one side and a pale brown, broad central area on the other side.

Similar Non-Native Species:

(i) Ox-eye daisy (*Leucanthemum vulgare*) has more finely divided leaves; (ii) wild chamomile (*Matricaria recutita*), (iii) stinking mayweed (*Anthemis cotula*), and (iv) pineapple weed (*Matricaria discoidea*) leaves all have a strong odour when crushed; and (v) corn chamomile (*Anthemis arvensis*) has stems that are hairy below the heads.



Ecological Characteristics

Habitat: Found on low to mid-elevation sites, along roadsides, drainage ditches, fence lines, dry shorelines, and other disturbed areas. Can infest perennial forage crops. Prefers areas with high soil moisture and is commonly found near ponds, streams, and other areas prone to seasonal flooding.

Reproduction: An annual, biennial, or short-lived perennial that reproduces only by seed. Single plants can produce up to 1 million seeds that are mature as soon as the flower forms. Seeds remain viable up to 15 years in the soil. Most seedlings establish in the spring or fall. Early-emerging plants flower during the year of germination while later-emerging plants over-winter and develop into large, multiple-branched plants the following spring. Flowering can occur between spring (e.g. May) and fall (e.g. October). Over-wintering plants generally flower first.

Dispersal: Seeds are readily dispersed by wind or water, on equipment and vehicles, or as a contaminant in soil, fill material, crop seed, and animal feed. Seeds can float for 12 hours and new infestations are often found around watercourses. Transportation corridors serve as major sources of infestation and spread, and there is an increased risk of invasion to adjacent agricultural areas & aquatic systems.



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Impacts

Economic: Can reduce crop and pasture yields.

Ecological: Primary impacts are to aquatic systems where monocultures form near waterbodies or riparian areas, on sites with heavy soils and high soil moisture, or in areas that are subjected to periodic flooding.

Integrated Pest Management

IPM is a decision-making process that includes identification and inventory of invasive plant populations, assessment of the risks that they pose, development of well-informed control options that may include a number of methods, site treatments, and monitoring.

Prevention

- » Monitor for scentless chamomile on both disturbed and undisturbed sites.
- » Look for seed mixtures that indicate where the seed material was collected, request only non-invasive species, and know the level of 'contamination' from your seed supplier.
- » Ensure soil, gravel, and other fill material are not contaminated.
- » Avoid unloading, parking, or storing equipment and vehicles in infested areas.
- » Minimize soil disturbance during activities and re-vegetate exposed soil as soon as possible.
- » Remove plants, plant parts, and seeds from personal gear, clothing, pets, vehicles, and equipment. Wash vehicles, including tires and undercarriage, and equipment at designated cleaning sites before leaving infested areas.
- » Bag or tarp plants, plant parts, and seeds before transporting to a designated disposal site (e.g. landfill).
- » Take special care when controlling scentless chamomile near streams or ditch lines to prevent the movement of plant parts downstream.
- » Maintain or establish healthy plant communities that are resistant to invasion by invasive plants.

Mechanical Control

- » Mowing can be used to reduce seed production in pastures, hayfields, and non-crop areas, and should be done early and often before flowers are formed. Each successive mowing should be lower than the previous one, as plants will form new flowers in the leaf axils below mowing height.
- » Frequent shallow tillage can be used to control seedlings if done during hot, dry weather and before plants flower.
- » Hand pulling small infestations before they go to seed can prevent new infestations from developing. Bury or dispose of plant material in a landfill.
- » Monitor controlled infestations throughout growing season.

Biocontrol

- » A seed-head weevil (*Omphalapion hookeri*), stem-boring weevil (*Microplontus endentulus*), and adult gall midge (*Rhopalomyia tripleurospermi*) have been released in northeastern BC.



Chemical Control

- Herbicide recommendations and use must first consider site characteristics and be prescribed based on site goals and objectives. Herbicide labels and other sources of information must be reviewed before selecting and applying herbicides.
- » Effective herbicides include picloram, aminopyralid, metsulfuron methyl, dicamba, 2,4-D, and MCPP. Herbicide applications are most effective early in the season before flowering, but can be done throughout the season as long as plants are green and growing.
 - » Non-selective herbicides containing glyphosate are not recommended, as all vegetation on site will be killed, leaving no competition for new, emerging scentless chamomile plants.
 - » Application of pesticides on Crown land must be carried out following a confirmed Pest Management Plan (Integrated Pest Management Act) and under the Supervision of a certified pesticide applicator. <https://www2.gov.bc.ca/gov/content/environment/pesticides-pest-management>

References/Links

- » BC Ministry of Forests, Lands, and Natural Resource Operations, Invasive Alien Plant Program (IAPP). <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/reporting-invasive-species>
- » E-Flora BC, an Electronic Atlas of the Plants of BC. <http://www.eflora.bc.ca/>
- » Field Guide to Noxious Weeds and Other Selected Invasive Plants of British Columbia. BC Ministry of Agriculture. https://bcinvasives.ca/documents/Field_Guide_to_Noxious_Weeds_Final_WEB_09-25-2014.pdf
- » Alberta Invasive Species Council. Scentless Chamomile <https://abinvasives.ca/wp-content/uploads/2017/11/FS-ScentlessChamomile.pdf>
- » Weed Seed: Tripleurospermum inodorum (Scentless chamomile). Canadian Food Inspection Agency. <http://www.inspection.gc.ca/plants/seeds/testing-grading/seeds-identification/tripleurospermum-inodorum/eng/1405513897968/1405513898734>