

Bull Thistle

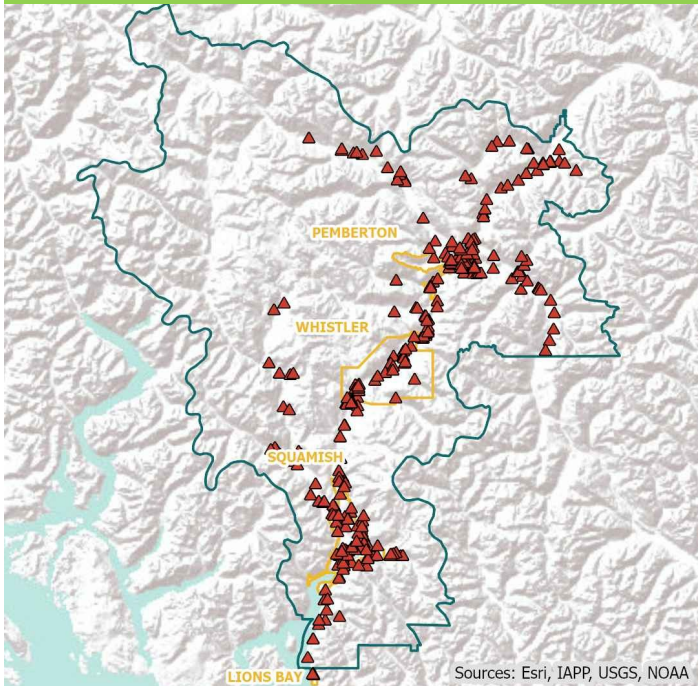
Cirsium vulgare

AKA Spear Thistle



Squamish: Strategic Control | Whistler: Strategic Control | Pemberton: Strategic Control

DISTRIBUTION



Origin: Introduced from Europe and Asia, Bull Thistle is believed to have made its way to North America as a seed contaminant.

Habitat: Thriving in disturbed soils, this thorny plant can be found along clear-cuts, roadsides, and pastures. Resilient as it may be, Bull Thistle prefers rich, moist soils and does not tolerate shade. As a result, it doesn't fare so well in healthy, densely-canopied forests.

Reproduction: Bull Thistle spreads through seeds, which germinate easily. In optimal conditions, mature Bull Thistle plants can produce 100 - 300 seeds per flower head, with one to more than 400 flower heads per plant.

As a biennial or monocarpic perennial, individual Bull Thistle plants only set seed once before dying.

If the seeds are buried 15 cm or deeper, they may remain viable in the soil for up to 3 years or more.

IDENTIFICATION



Bruce-Ackley, The Ohio State University, Bugwood.org

Flowers: Are deep pink-purple (sometimes white), gumdrop-shaped flowers at the end of each stem. Flower heads are about 4 - 5 cm wide, surrounded by spines that extend from the base all the way down the stems.

Stems: Growing up to 2 m tall, stems are stiff and spiny. Young plants form a rosette up to 1 m in diameter, while older plants are erect and branched.

Leaves: Deeply lobed leaves alternate on stems and branches, donning distinctive spiny tips. Rather dull in colour, the leaves are a silvery-green on top with white hairs underneath.

Roots: With a main short, fleshy taproot in place, Bull Thistle grows many smaller, lateral roots to invade the surrounding area.

Similar Species:

- **Native:** Wavy Leaf Thistle (*Cirsium undulatum*)
- **Non-native:** Plumeless Thistle (*Carduus acanthoides*)
- **Invasive:** Scotch Thistle (*Onopordum acanthium*), Canada Thistle (*Cirsium arvense*)

Bull Thistle's winged stems are very distinctive.

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Vectors of Spread: Bull Thistle seeds can spread more than 2 km per year in the wind, but land near the parent plant. Seeds are also spread by vehicles and equipment, or in contaminated soil.

WHAT CAN I DO?

Bull Thistle is found in communities throughout the Sea to Sky Region, so PREVENTION of further spread is key:

- Regularly monitor properties for weed infestations.
- Ensure soil, gravel, hay and fodder aren't contaminated before transport, storage and dispersal.
- Minimize soil disturbances (e.g. use grazing plans that prevent soil exposure from overgrazing), and use seed mixes with dense, early colonization (e.g. alfalfa or barley) to re-vegetate exposed soil and resist invasion.
- Ensure plants (particularly flowering heads and seeds) are bagged or covered to prevent spread during transport to designated disposal sites (e.g. landfill). **Do NOT compost.**

Bull Thistle can be controlled by:

- **Mechanical Control:** Hand-pulling (while wearing gloves to protect yourself against the plant's prickly spines) is effective for small infestations. Mowing before seed set is also an effective control method against Bull Thistle, since the plant dies off after setting seed. However, note that since plants mature and set seed at varying rates, repeated mowing throughout the season is recommended. Since Bull Thistle only reproduces by seed, control measures that sever the root below the soil surface are viewed as effective.
- **Chemical Control:** Aminopyralid, clopyralid, dicamba, glyphosate, triclopyr, chlorsulfuron, imazapyr, metsulfuron and 2,4-D have proven effective for Bull Thistle control. Picloram also has shown positive results, however it is not suitable for wet, coastal soils. Herbicides are most effective when used during the plant's rosette stage or after mowing. The use of a surfactant is recommended, due to the hairy leaf surface. We recommend that any herbicide application is carried out by a person holding a valid BC Pesticide Applicator Certificate. Before selecting and applying herbicides, you must review and follow herbicide labels and application rates; municipal, regional, provincial and federal laws and regulations; species-specific treatment recommendations, and site-specific goals and objectives.
- **Biological Control:** A seed weevil, *Larinus planus*, has been released in the Sea to Sky to feed exclusively on invasive thistles. Most animals do not care for the bitter taste of Bull Thistle, and will not consume it.
- **Integrated Control:** A combination of prevention and various control methods holds the highest success rate for Bull Thistle management and control. Reducing disturbances and reseedling are critical to preventing the plant's return after treatment. Chemical control methods must be avoided if biocontrol agents have been released.

If you suspect you have found Bull Thistle anywhere in the Sea to Sky region:

Contact the Sea to Sky Invasive Species Council to report and for the most recent, up to date control methods. All reports will be kept confidential.

References: CABI, Eflora BC, Invasive Species Council of BC, Government of BC, King County, Northwest Invasive Plant Council, Pacific Northwest Pest Management Handbooks, Urban Bee Network, WSU Whatcom County Extension, Washington State Weed Control Board, UC Davis.

IMPACTS

Ecological:

- Establishes quickly in disturbed areas, rapidly encroaching on native floral populations.
- Reduces biodiversity.
- Unpalatable to native wildlife.
- Once established, Bull Thistle is extremely difficult to eradicate due to its high seed production and sequential germination pattern.

Economic:

- Decreases forage value by contaminating hay bales.
- Limits livestock migration.



REPORT SIGHTINGS

Visit ssisc.ca/report

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