

Orange Hawkweed

Hieracium aurantiacum or
Pilosella aurantiaca

About Orange Hawkweed

It is one of 14 introduced hawkweeds species in BC. It is the only hawkweeds species with orange flowers among all other native or exotic hawkweeds in BC which have either white or yellow flowers. This perennial spreads primarily by stolons but also by wind borne seed. Although new populations likely originate from seeds, established infestations will increase primarily through vegetatively by stolons.

Legal Status

Weed Control Act – Regionally noxious in the following regions: Bulkley-Nechako, Cariboo, Central Kootenay, Columbia-Shuswap, East Kootenay and Thompson Nicola. *Forest and Range Practices Act*, Invasive Plant Regulations

Distribution

This species is scattered and locally abundant in the southern Kitimat Stikine, Bulkley Nechako, Fraser Ft George and Cariboo regions of the province. It is regarded as a major concern in the Kootenay, Okanagan, Thompson, Cariboo, Omineca and Peace River agricultural reporting regions/

Identification

Flowers: Produces conspicuous bright orange to red flowers that are borne in clusters.

Stems: Stems are upright and solitary, covered with hairs and can range in 0.3 m to 1.2 m in height.

Leaves: A basal rosette of oblong-spatulate shaped leaves 4-20 cm in length, narrowed at the petiole and covered in hairs both on the top and bottom of the leaf.

Fruits: Achenes are dark ribbed, narrowed at the base, 2 mm in length and have a brownish bristly pappus.

Similar Native Species: There are native yellow hawkweed species found in BC which can be distinguished from orange hawkweed by their flower colour, a lack of stolons and presence of stem leaves.

Similar Non-Native Species: In British Columbia, there are 13 different species of introduced hawkweeds, however it is easy

to distinguish *Hieracium aurantiacum* or *Pilosella aurantiaca* from other *Hieracium* species as it produces orange flowers instead of yellow flowers.

Ecological Characteristics

Habitat: Prefers well-drained and coarse textured soils with low organic matter. There are many habitats in B.C. which have these soil types such as fields, meadows, forest clearing, pastures, farmland and other modified habitats.

Reproduction: Propagation is through large seed production, long distance dispersal, high germination ability and root fragments.

Dispersal: Transfer of small seeds and root fragments through intentional and unintentional human activity allows this species to travel large distances and colonize new locations.

Impact

Economic: Competes with desirable/native species and impacts ranching and agriculture by decreasing yields and quality of forage production resulting in low stocking rates.

Ecological: Orange hawkweed has a negative impact on biodiversity, native flora and fauna, and rare protected species.

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 treatment, and monitoring.

Prevention

- » Educate gardeners and horticulturists to prevent active distribution and trading.
- » Do not move any soil that could possibly contain seeds or room fragments.
- » Clean vehicles, personal gear, boots, and animals that have been in contact with contaminated soil.

Mechanical control

- » Mowing before flowers bloom will help reduce the seed production however soil disturbances may help this species to spread.
- » Small infestations can be hand-pulled however great care needs to be taken to ensure that roots and stolons are carefully bagged and disposed of and not spread.

Biological Control

In 2011, a stolon-tip gall wasp *Aulacidea subterminalis* was released in British Columbia. In 2012, inspections revealed low levels of establishment of the stolon-tip gall in orange hawkweed.

In 2016, a root feeding hover fly (*Cheilosia urbana*) was approved for release and is expected for arrival in 2017.

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.

- » Picloram and picloram plus 2,4-D is effective when applied to actively growing plants (spring and early summer).
- » Aminopyralid alone or with 2,4-D or dicamba plus 2,4-D are effective applied during active growth.
- » Dicamba is recommended for spring applications for lawns and turf.
- » Treatment with fertilizer to stimulate growth of surrounding desirable species to facilitate competition is recommended.
- » Spring treatments with both herbicide and nitrogen fertilizer appear to be the best treatment for hawkweeds. Fall fertilizer applications are not recommended because excessive nitrogen loss through leaching will occur during the winter.

Application of herbicides on Crown land must be carried out following a confirmed Pest Management Plan (*Integrated Pest Management Act*) and under the supervision of a certified applicator. www.env.gov.bc.ca/epd/epdpa/ipmp/index.html



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Disposal

Note: Disposal of invasive plants varies by region. Contact your local government for specific information on how to dispose of your invasive plants.

- » Chemically treated plants can be left on site to compost.
- » Tarp and bag removed plants, plant parts and seeds before transporting to a designated disposal site (e.g. landfill or transfer station).
- » It is recommended that transfer stations provide disposal bins intended solely for invasive plants. This will ensure the plant matter within the container is transported in a sealed unit and properly disposed of at the landfill.
- » Burning and composting is not recommended as extreme temperatures are required. cut plant parts should undergo deep burial (at least 5m deep) at a landfill.

Common Names

Orange-red king devil, devil's paintbrush

References/Links

Albert Invasive Species Council, Orange Hawkweed. [accessed 2/22/2017; <https://www.abinvasives.ca/factsheets/150727-fs-orangehawkweed-1.pdf>]

CABI, *Pilosella aurantiaca*. [accessed 2/22/2017; <http://www.cabi.org/isc/datasheet/27160>]

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Hawkweeds; Pacific Northwest Extension Publication #499. <https://www.cals.uidaho.edu/edcomm/pdf/PNW/PNW0499.pdf>