

Himalayan Balsam

Impatiens glandulifera

About Himalayan Balsam

Himalayan balsam is very invasive and spreads quickly along watercourses. This annual bamboo like plant is very recognizable by its flowers that resemble an English 'policeman's helmet' and by the whorled leaves, usually in threes, and a recognizable purple and reddish stalk.

Legal Status

Exotic, invasive plant of concern.

Distribution

Himalayan balsam is primarily in southern BC, particularly the Lower Mainland, Fraser River delta, Kootenay, Terrace, and Bella Coola Valley.

Identification

Flowers: Exotic-looking with white to pink to purple, helmet-shaped flowers.

Stems: Stems are bamboo-like, thick, highly branched and purple to reddish tinged. Plants can grow over 2 m tall.

Leaves: Leaves are in whorls (usually in threes), oblong to egg-shaped, and have a serrated edge, often tinged with red.

Fruits: Seed capsules are 3-5 cm long, up to 1.5 cm wide and contain up to 16 seeds.

Similar Native Species: Wild Bleeding Heart (*Dicentra formosa*) a native with delicate, lacy leaves and arching sprays of tightly clustered hanging pink flattened bells. Pink monkey flower (*Mimulus lewisii*), a perennial that is robust, short and hairy, flowers are bright rosy pink with a yellow throat, usually found growing along seepage areas and other well-drained, wet sites.

Similar Non-Native Species: Spotted snapweed, or touch-me-not (*Impatiens balsamina*) have similar features as Himalayan balsam with the exotic looking flower, however the stem is green and the leaves are more spirally-arranged and narrower.



Ecological Characteristics

Habitat: Himalayan balsam prefers disturbed, riparian systems, it can also grow in shaded environments, wet meadows, forest cut blocks, and damp natural woodland. The plant is intolerant of drought.

Reproduction: An annual that reproduces by seed. Seeds can remain viable for up to 18 months in the soil and typically germinate in early spring, approximately 80% germination rate.

Dispersal: Up to 32,000 seeds can be produced per square metre in a dense stand of policemen's helmet. Seeds are produced in explosive seed-pods, which can throw seeds up to 7 m.

Impact

Ecological: With the ability to out-compete late flowering native species in BC's riparian zones, infestations of Himalayan balsam decrease the diversity of plants in these areas and can damage ecosystems. Himalayan balsam has extremely sweet nectar, which may attract pollinators away from native plants.

Economic: The shallow root system and annual nature of the plant exposes invaded areas to erosion during winter when the plants die off.

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.

A. Prevention

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

- » Maintain high caution when working around infested area; seedpods are highly explosive to touch and can disperse seeds when touched.

B. Mechanical control

- » Mechanical control should be performed before any flowers or seedpods are present on the plants to avoid the spread of seeds.
- » Hand pulling is an easy and very effective way to remove plants. It is feasible to remove smaller infestations by hand pulling.
- » Plants should be bagged and disposed of at the landfill, as regrowth is possible.
- » Mulching or soil cultivation can be successful.
- » Annual site monitoring is essential to assess re growth.

C. Biocontrol

- » One *Puccinia* species (rust) is currently in the testing phase with CABI Europe-UK.

D. Chemical Control

Herbicide 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.

- » Herbicide use is limited due to Himalayan balsam being found in wet areas. If used, herbicide runs the risk of entering the water column.
- » Glyphosate herbicides are effective herbicides on Himalayan balsam.
- » Other effective herbicides include: 2,4-D, triclopyr.
- » In BC glyphosate and other herbicides have restricted uses adjacent to water courses or riparian areas. Check the Integrated Pest Management Regulations for specific uses in these areas.
- » For best results, herbicides should be used before Himalayan balsam begins to flower in order to minimize seed production.

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 pesticide applicator. www.env.gov.bc.ca/epd/epdpa/ipmp/index.html

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 are not recommended as extreme temperatures are required.

Common Names

Himalayan balsam, Policemen's Helmet, Poor Man's Orchid, Himalayan Impatiens, Ornamental Jewelweed, Kiss-me-on-the-mountain, Indian touch-me-not, Indian balsam.

References/Links

Alberta Invasive Species Council. <https://www.abinvasives.ca/factsheets/150722-fs-himalayanbalsam-4.pdf>

Cariboo Regional District website. <http://www.cariboord.bc.ca/invasive-plants/himalayan-balsam/36>

Invasive Plants of Southwest BC website. http://www.shim.bc.ca/invasivespecies/_private/himalayan_balsam.htm

Invasive Species Compendium. <http://www.cabi.org/isc/datasheet/28766>

Invasive Species Council BC. <http://bcinvasives.ca/invasive-species/identify/invasive-plants/himalayan-balsam>

King Country Himalayan Balsam factsheet. http://your.king-county.gov/dnrp/library/water-and-land/weeds/Brochures/Policeman's_Helmet_factsheet.pdf



Thank you to the BC Ministry of Environment and the BC Ministry of Transportation and Infrastructure for providing project funding, and to those who advised the development of these management recommendations.