

HOUND'S-TONGUE

Cynoglossum officinale L.

Family: *Boraginaceae* (Borage).

Other Scientific Names: None.

Other Common Names: Dog bur, gypsy flower.

Legal Status: Provincial Noxious.

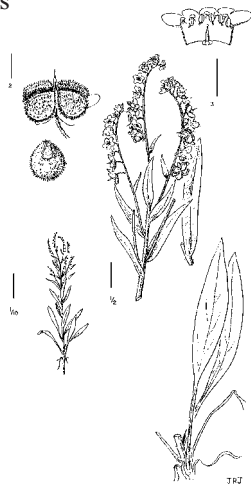
Growth form: Biennial or short-lived perennial forb.



Flower: Flowers are reddish purple, with 5 petals, arranged in panicles in the upper leaf axils.

Seeds/Fruit: The fruit is composed of 4 nutlets, each about 7 mm long (Powell et al. 1994).

Leaves: Leaves are alternate, 10–30 cm long, 2–5 cm wide, rough, hairy, and lacking teeth or lobes. Basal leaves are elliptical to oblanceolate and tapered at the base.



Stems: The plant may produce a single flowering stem or multiple stems/plant. The stem is erect, 0.3–1.2 m tall, and usually branched above.

Roots: A woody taproot.

Seedling: Seedlings emerge both spring and autumn, and a rosette develops in the first year.

Similar Species

Exotics: None.

Natives: Northern hound's-tongue. Infrequent in BC, occurring in forest openings in the lower montane zone (Douglas et al. 1998).

Impacts

Agricultural: Hound's-tongue on rangeland and pasture decreases forage available to grazing animals. The barbed seeds readily cling to hair, wool, and fur of animals. This can result in reduced sale value, stress on animals, and veterinary costs if the burrs cause eye irritation (Upadhyaya et al. 1988). The plant contains toxic alkaloids that stop liver cells from reproducing. Animals may live 6 or more months after eating a lethal dose. Plants have proven a problem in infested

hay, but standing plants are seldom grazed. Sheep are more resistant to hound's-tongue poisoning than cattle or horses.

Ecological: Hound's-tongue is an early successional species, but its impacts on biodiversity and forage production on rangelands have not been documented.

Human: Not recommended for human consumption, although medicinal properties are purported.

Habitat and Ecology

General requirements: Hound's-tongue grows from grasslands to low- and mid-elevation forests in BC. It is associated with soil disturbance on dry sites on

pastures, roadsides, and logged-over forestland (Powell et al. 1994). It appears adapted to areas with alkaline soils (Stubbendieck et al. 1995).

Distribution: Occurs primarily in the southern Interior. It is considered a major concern in the Kootenay, Okanagan, Thompson, and Cariboo agricultural reporting areas. It is widely distributed in the US, where it grows on rangeland, pastures, abandoned cropland, roadsides, and disturbed habitats (Butterfield et al. 1996).

Historical: Introduced from Eurasia, likely as a contaminant in seed.

Life cycle: A biennial or short-lived perennial that produces a rosette during the first year. During the second year (or subsequent years), the plant bolts and produces seeds.

Mode of reproduction: By seed.

Seed production: Mature plants can produce up to 2,000–4,000 seeds annually (Powell et al. 1994).

Seed bank: Seeds remaining on the parent plant may remain viable for 2–3 years. Buried seed rarely survive more than a year (Butterfield et al. 1996).

Dispersal: Seeds attach to clothing, livestock, and wildlife and can easily be spread great distances.

Hybridization: No information available.

Management

Biocontrol: *Mogulones cruciger* (weevil) was released in BC in 1998, and preliminary results indicate the insect is having a significant impact on hound's-tongue. Research continues on other specialized insects as well. Two indigenous diseases, *Erysiphe cynoglossi* and *Phoma pomorum*, cause a mildew and brown lesions on the leaves, respectively.

Mechanical: Mowing plants before seed-set reduces the seed production and may kill the plant.

Fire: No information available.

Herbicides: In BC, excellent long-term control is achieved with picloram applied in spring, summer, or autumn. Dicamba provides good control applied either spring or autumn (Upadhaya and Cranston 1991). Spring applications of picloram, dicamba, and metsulfuron-methyl have been more effective than autumn treatments in the US (Sebastian and Beck 1995). Glyphosate also controls actively growing plants. **Consult the most recent edition of BC Ministry of Agriculture, Food and Fisheries Crop Production Guides for specific recommendations. Before applying herbicides, read the label for full use and precautionary instructions.**

Cultural/Preventive: Hand-pulling can be effective for small populations and especially before the plant sets seed. Clean cattle, horses, dogs, and yourself before moving from a hound's-tongue-infested area. Check vehicle for seeds.

Integrated Management Summary

Hound's-tongue can quickly form dense stands on disturbed areas. Treat first-year plants with herbicides, or hand-pull plants. Mow bolted plants to eliminate seed production. Repeat this process to exhaust the seed bank. Ensure that areas where livestock congregate (such as corrals and gates) are weed-free, especially when the weed is in seed-set. Manage livestock to maintain a vigorous population of perennial plants to provide ground cover. Check people, vehicles, and dogs for seeds before you leave an infested area.

References

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