

BLACK KNAPWEED

Centaurea nigra L.

Family: Asteraceae (Sunflower).

Other Scientific Names: None.

Other Common Names: Lesser knapweed.

Legal Status: Not categorized.



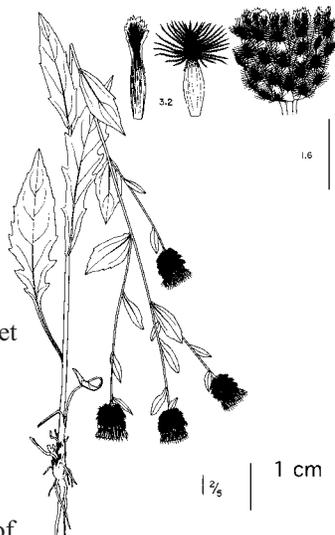
Identification

Growth form: Perennial forb.

Flower: Flower heads are solitary at the ends of the branches. The flowers are rose to purple, occasionally white, and all are tubular. Floral bracts have long, black fringes from a black or dark brown triangular centre that gives a black appearance to the seed heads.

Seeds/Fruit: The flattened seeds are light brown or light grey, 3.0–3.5 mm long, with a short, bristly tip (Douglas et al. 1998).

Leaves: Basal leaves are up to 15 cm long, are usually toothed or shallowly lobed, and have long stalks. Upper leaves of



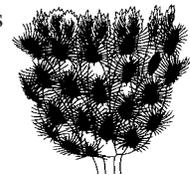
the stems are generally stalkless and narrow with entire margins. Lower stem leaves are larger, on stalks, and generally lobed (Douglas et al. 1998).

Stems: Stems are erect, unwinged, freely branched near the top, and 10–80 cm tall.

Roots: Black knapweed has both a vertical taproot and spreading lateral roots.

Seedling: Autumn emerging seedlings overwinter as a rosette of leaves.

Other: The whole plant is dull green and covered with small, rough hairs.



Similar Species

Exotics: Black knapweed is distinguished from other knapweeds by the floral bracts that have long, black fringes from a black or dark brown triangular centre. The heads tend to be larger than those of diffuse or spotted knapweed.

Natives: Native members of the sunflower family can resemble knapweed in the seedling/rosette stage.

Impacts

Agricultural: Black knapweed can infest disturbed rangeland and reduce forage production.

Ecological: Black knapweed does not establish readily in healthy, natural habitats. It typically invades

disturbed areas and can form dense stands.

Human: No information available.

Habitat and Ecology

General requirements: Black knapweed has been found in BC at low- to mid-elevations along roadsides and in fields. Outside the province it grows along roadsides, riverbanks, and irrigation ditches, and in pastures, disturbed habitats, clear-cuts, and croplands. It can tolerate a wide range of environmental conditions but appears best adapted to moist soils that

receive summer rainfall.

Distribution: Currently this species is rare in the province south of 51° N (Douglas et al. 1998). It is only known to be present in the Kootenay and Omineca agricultural reporting regions.

Historical: No information available.

Life cycle: Black knapweed generally flowers from July through August. Seeds germinate from spring through early autumn. Seedlings that emerge in the autumn often overwinter as a rosette of leaves and resume growth in the spring.

Mode of reproduction: By seed and occasionally from root shoots (Roche and Roche 1991).

Seed production: Black knapweed can produce over 1,000 seeds/plant.

Seed bank: Seeds can remain viable in the soil for over 5 years.

Dispersal: People are the most significant agent for spread. Knapweed is often spread in hay and on vehicle undercarriages.

Hybridization: Black knapweed readily crosses with brown knapweed (*Centaurea jacea*) to form the fertile hybrid, meadow knapweed (*Centaurea debauxii*).

Management

Biocontrol: None.

Mechanical: Small infestations can be pulled and larger infestations can be mowed, burned, or mulched and then treated with herbicides as soon as new seedlings emerge.

Fire: No information available.

Herbicides: Picloram, dicamba, or a combination of clopyralid and 2,4-D have all been used effectively to manage black knapweed. 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: Minimize disturbance and establish robust stands of grasses or forbs to out-compete black knapweed.

Integrated Management Summary

Land managers must learn to identify knapweed. New infestations of this species should be a high management priority. Timely management of a few plants is very cost-effective compared to treating larger acreage later. Since black knapweed establishes in disturbed sites, persistent monitoring of commonly disturbed areas (e.g., roadsides, along trails, stream banks, and where hay is fed) is a good way to search for new infestations. Manage knapweed infestations with a combination of mechanical and chemical treatments. In addition, improving the health of a natural area and guarding against disturbance or overuse are good preventive measures.

References

Douglas, G. W., G. B. Straley, D. Meidinger, and J. Pojar, eds. 1998. *Illustrated Flora of British Columbia*. Vol. 1: *Gymnosperms and Dicotyledons (Aceraceae through Asteraceae)*. Province of British Columbia.

Roche, B. F., Jr., and C. T. Roche. 1991. Identification, introduction, distribution, ecology, and economics of *Centaurea* species. In L. F. James, J. O. Evans, M. H. Ralphs, and R. D. Child, eds. *Noxious Range Weeds*. Boulder, CO: Westview Press.

USDA, NRCS. 1999. *The PLANTS Database*. Baton Rouge, LA: National Plant Data Center.

<http://plants.usda.gov/plants>

