

MEADOW KNAPWEED

Centaurea debauxii Gren. & Godr.

Family: Asteraceae (Sunflower).

Other Scientific Names: *Centaurea debauxii*.

Other Common Names: None.

Legal Status: Regional Noxious: Columbia-Shuswap.



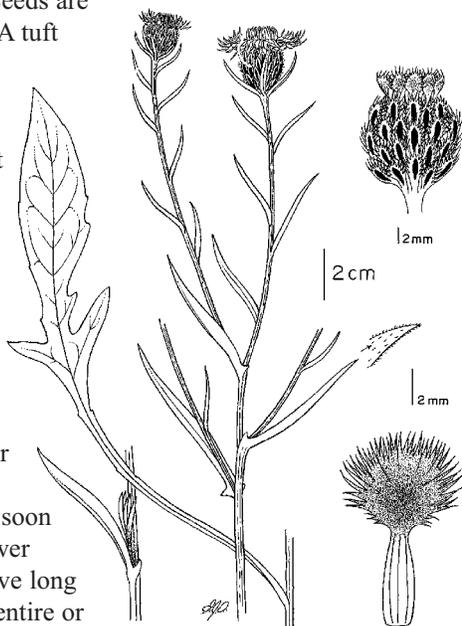
Identification

Growth form: Perennial forb.

Flower: Several to many large pink to purplish red (occasionally white) heads are borne at the end of branches. The bracts are light to dark brown with a tattered fringe or comb at the tips (Douglas et al. 1998).

Seeds/Fruit: Seeds are 2–3 mm long. A tuft (pappus) of papery bristles 4–5 mm long may be present or lacking.

Leaves: The lance-shaped basal leaves are sparsely covered in long hairs and may be pinnately cut or have wavy margins. They soon wither. The lower stem leaves have long stalks and are entire or



may be shallowly lobed; the upper stem leaves are small, stalkless, and unlobed.

Stems: Stems are erect, branched, and thinly covered in hairs. Plants grow 0.4–1.0 m tall.

Roots: Taproot with a woody crown.

Seedling: No information available.

Similar Species

Exotics: Resembles many of the knapweeds, but meadow knapweed, black knapweed (*Centaurea nigra*), and brown knapweed (*Centaurea jacea*) are distinguished by their undivided leaves. Meadow knapweed may be a hybrid of brown and black knapweed, so it is difficult to distinguish the 3 species (Frankton and Mulligan 1970). Black knapweed has a well-developed pappus, long stalks on the lower stem leaves, and a narrow fringe on the involucre bracts. Brown knapweed has no pappus and has short stalks on the lower leaves and a narrow fringe on the involucre bracts. Meadow knapweed has a weakly developed to absent pappus, long stalks on the lower stem leaves, and wide, bushy fringes on the involucre bracts.

Natives: None.



Impacts

Agricultural: Can invade rangeland and pastures, causing reduction in carrying capacity. It can also result in reduced yields in hayfields.

Ecological: Not known to establish in undisturbed natural plant communities. Typically, it grows on

roadsides and disturbed areas, where it forms dense stands that hinder re-establishment of desirable native species.

Human: None.

Habitat and Ecology

General requirements: Infests roadsides, fields, pastures, and disturbed habitats at low- to mid-elevations.

Distribution: Considered a major concern in the Okanagan agricultural reporting region and present in most areas of BC except for the Peace River, Cariboo, and Lower Mainland regions. It is common in Oregon and northern California.

Historical: Introduced from Europe.

Life cycle: Perennial. Seeds can germinate from spring through autumn, with autumn-germinated plants usually overwintering as a rosette. Plants flower from July through August, depending on geographic location.

Mode of reproduction: By seed.

Seed production: No information is available. Black knapweed, a close relative, can produce more than 1,000 seeds/plant.

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

Dispersal: Most seeds are dispersed beside the plant. Can be dispersed by birds, which eat the seeds, or by wind.

Hybridization: Considered a hybrid of black and brown knapweed.

Management

Biocontrol: *Urophora affinis* (fly) and *Urophora quadrifasciata* (fly), 2 seed head flies released to manage diffuse and spotted knapweed, can use this species as a host plant. Although they may reduce seed production, these agents alone cannot manage this weed.

Mechanical: Larger infestations can be mowed to remove topgrowth, then new seedlings treated with herbicide as they emerge. Bag and burn mown plants.

Fire: Fire can destroy seeds on standing seed heads, but it will not kill seeds in the seed bank. Herbicides are required to control emerging seedlings following burning.

Herbicides: Picloram, dicamba, or a combination of clopyralid and 2,4-D have all been effective. 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: Small infestations can be hand-pulled. Minimize disturbance and manage for vigorous pastures dominated with perennial plants or natural communities.

Integrated Management Summary

Control new infestations immediately. Disturbed areas such as roadsides, feeding areas, corrals, trails, and stream banks should be monitored for new infestations and controlled. Seed disturbed areas with perennial grasses and forbs.

References

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

Frankton, C., and G. A. Mulligan. 1970. *Weeds of Canada*. Publication 948. Ottawa: Canada Department of Agriculture.

