

Leucanthemum vulgare

O X E Y E D A I S Y

ENGLISH NAMES

Oxeye daisy, white daisy, field daisy, midsummer daisy, dog daisy, marguerite, poorland flower, moon-penny, poverty weed

SCIENTIFIC NAME

Leucanthemum vulgare Lam.
(synonym *Chrysanthemum leucanthemum* L.)

FAMILY

Asteraceae or Compositae (Daisy)

Oxeye daisy is a short-lived perennial herb with white and yellow, daisy-like flowers.



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RANGE/KNOWN DISTRIBUTION

Oxeye daisy was introduced to North America from Europe in the early 19th century as an ornamental plant. It has escaped cultivation and is now widely distributed across Canada, including southern Vancouver Island. It is also common throughout the U.S. Oxeye daisy is present on the fringes of and occasionally within Garry oak communities where there has been recent soil disturbance, such as along trails.

IMPACTS ON GARRY OAK AND ASSOCIATED ECOSYSTEMS

Oxeye daisy can become invasive and aggressively take over fields. It can modify existing communities, forming dense populations that decrease plant species diversity. In areas of heavy infestation, bare soil becomes more common, increasing the potential for soil erosion.

FIELD DESCRIPTION

This perennial herb grows 0.2 to 1 m tall. Small flowers (florets) are clustered in composite heads 2-5 cm wide, with white ray florets (“petals”) radiating out from a yellow centre of disk florets. Ray florets are slightly notched at the tip. Stems may be smooth or grooved and hairless to slightly hairy, and they may branch near the top. Leaves are spoon-shaped, lobed or coarsely toothed, and stalked at the base, becoming smaller, less toothed and unstalked up the plant. The entire plant has an unpleasant odour when crushed. Oxeye daisy usually grows in patches, appearing only rarely as a single plant.

Oxeye daisy is sometimes confused with the ornamental Shasta daisy (*Chrysanthemum maximum* or *C. x superbum*), which is a bigger plant with larger flowers, and which is thought to be less invasive than oxeye daisy.

LEUCANTHEMUM VULGARE

Heads with both ray and disk florets; 20-30 white ray florets, each 1-2 cm long; yellow central disk florets

Heads usually single, at the ends of long, slender stems

Bracts under flower head overlap and have thin, dry margins

Stem leaves become smaller, unstalked and nearly smooth-edged up the stem

Lower leaves are alternate, egg-shaped to spoon-shaped, stalked, deeply lobed or toothed, 4-15 cm long

Brown to black, hard, dry, seed-like fruits (achenes) with 8-10 white ribs; fruits nearly cylinder-shaped, about 1 cm long

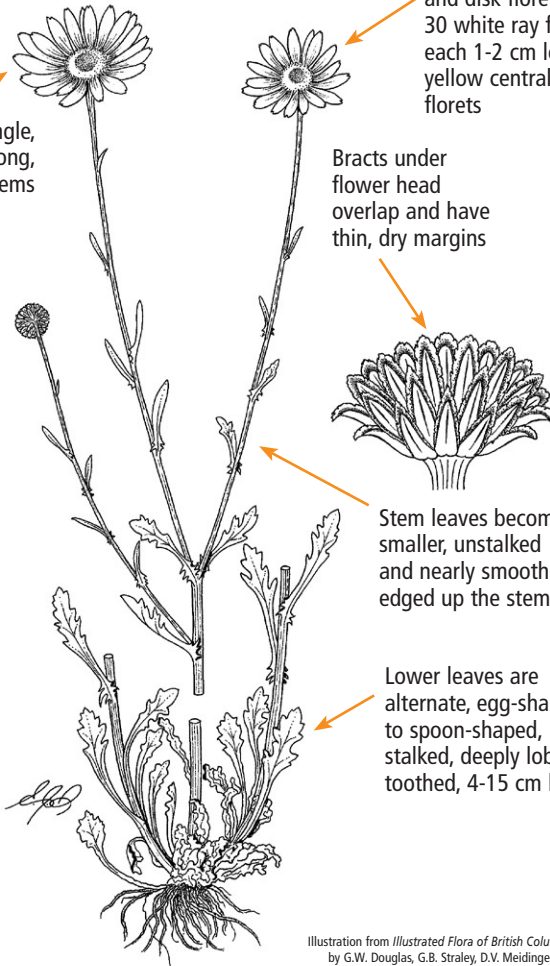


Illustration from *Illustrated Flora of British Columbia*, by G.W. Douglas, G.B. Straley, D.V. Meidinger, and J. Pojar (1998). © Province of British Columbia

LIFE HISTORY

Oxeye daisy forms a basal rosette in spring, and usually begins flowering after one to two years. Blooms appear in summer through early autumn. The roots must experience a period of cold each year to initiate flowering. Reproduction is mainly by seed but also by sprouting from the root crowns. Seeds germinate late in the growing season, especially during rainy periods. New seedlings establish in spring. Seeds may remain viable in the soil for 5 to 40 years. Each plant can produce several hundred seeds per season.

HABITAT

Oxeye daisy is found along roadsides and in fields, meadows, pastures and other disturbed sites in relatively moist (mesic) to dry sites. This plant needs some moisture in summer, and is not shade-tolerant.

MANAGEMENT

Develop a long-term, realistic program for invasive species removal before undertaking any work. Before taking action, obtain expert advice. Please refer to the introductory section of this manual.

Oxeye daisy produces many seeds and establishes best in bare soil, so management should focus on preventing soil disturbance and compaction, and maintaining a healthy and diverse cover of native species.

PHYSICAL CONTROL: Mowing can be somewhat effective for controlling oxeye daisy. To reduce seed production, mow as soon as flowers appear. Mowing may stimulate shoot production and more flowering, so mowing treatments should be repeated during long growing seasons.

For small-scale control, hand-weeding is effective but must be continued for several years to deal with ongoing germination from the seed bank. Dig out the plant before the flower heads are produced, being sure to remove the underground parts.

BIOLOGICAL CONTROL: No known biological agents are available.

CHEMICAL CONTROL: Herbicides such as 2,4-D, dicamba and imazapyr can be effective on oxeye daisy but will also kill other plants if not carefully applied. Oxeye daisy may be moderately resistant to 2,4-D and dicamba.

Herbicides containing clopyralid can be effective. For best results, spot-spray when oxeye daisy is in the rosette stage. Effects can be seen in one day, allowing plants that were missed to be easily detected and treated. Clopyralid persists in the soil for one to two years and will damage or destroy sensitive native species (e.g., composites and legumes), so it should be very carefully spot-sprayed.

Herbicides should be used in sensitive Garry oak ecosystems only with extreme caution and expert advice.

OTHER TECHNIQUES: Applying hot steam combined with an organic foam derived from corn and coconut sugars (Waipuna) can be an effective control method.

PREVENTIVE MEASURES: To prevent oxeye daisy from invading, limit soil disturbance and be careful not to distribute seeds of this species inadvertently.

PERSISTENCE: While oxeye daisy plants are relatively short-lived, the seeds can persist in the soil for many years.

GENERAL COMMENTS

In the past, oxeye daisy was cultivated for home remedies to treat whooping cough and other respiratory ailments.

SELECT REFERENCES

Douglas, G. W., G. B. Straley, D. V. Meidinger, and J. Pojar (eds.). 1998. *Illustrated Flora of British Columbia, Volume 1: Gymnosperms and Dicotyledons (Aceraceae through Asteraceae)*. BC Ministry of Environment, Lands and Parks and BC Ministry of Forests, Victoria, BC. 436 pp.

Krueger, J. M., and R. L. Sheley. 2002. *Oxeye Daisy* (*Chrysanthemum leucanthemum*) *MontGuide Fact Sheet*. Montana State University Extension Service, Bozeman, MT.

<http://www.montana.edu/wwwpb/pubs/mt200002.html> (accessed 20 May 2005).

Rutledge, C. R., and T. McLendon. 1998. *An Assessment of Exotic Plant Species of Rocky Mountain National Park: Chrysanthemem leucanthemem L. [sic] (Leucanthemem vulgare Lam.), [sic] Oxeye daisy, white daisy (Asteraceae)*. Department of Rangeland Ecosystem Science, Colorado State University, Fort Collins, CO. 97 pp.

Also online: <http://www.npwrc.usgs.gov/resource/plants/explant/chryleuc.htm> (accessed 20 May 2005).

A comprehensive annotated bibliography of literature specific to oxeye daisy is available at <http://www.goert.ca/resources/biblio.htm>.

For more information contact the Garry Oak Ecosystems Recovery Team, or see the website at www.goert.ca