

**WRITTEN FINDINGS OF THE  
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD  
(Updated NOVEMBER 1998)**

Scientific Name:        *Centaurea macrocephala* Puschk. ex Willd.

Common Name:        Bighead knapweed

Family:                    Asteraceae (Compositae)

Legal Status:            Class A

Description and Variation:

Bighead knapweed, *Centaurea macrocephala*, is a member of the thistle tribe (Cynareae) in the sunflower family. This perennial species is the tallest knapweed growing in the Pacific Northwest, ranging from 2 feet to 5 feet tall, depending on the habitat. The plant stems are upright and unbranched, terminating in a single flower head. The leaves are broadly lance shaped with toothed edges and pointed tips, and they have a rough surface. Basal, or rosette, leaves are stalked, and they can reach 15 inches long and 3 inches wide. The leaves and leaf stalks are progressively smaller upward on the plant stem, with the top leaves being stalkless. The solitary flower heads are globe shaped, and 1 inch to 3 inches in diameter. The bracts beneath the flower head have thin, papery, fringed margins. The lower bracts show evidence of spines. The flowers are yellow. The seeds are medium brown and ridged, with a ring of light-colored bristles. *C. macrocephala* has a taprooted woody crown.

Economic Importance:

*Detrimental:* *C. macrocephala* has escaped cultivation to establish in an abandoned homestead in Pend Orielle, County, WA.

*Beneficial:* Sold as a garden ornamental and in seed packets, *C. macrocephala* is also found in dried flower arrangements. This species is sold under a variety of common names - including Lemon Fluff and Globe Centaury.

Habitat:

In its native habitat, *C. macrocephala* is found in high elevation grassy fields and subalpine meadows. In our region, the established field location of is in a grassy meadow, in loam and silt loam soils with precipitation of 20 inches, or more at an elevation ranging from 2560' to 2680'.

Geographical Distribution:

Bighead knapweed is native to Armenia and Romania, is found in fields and grassy areas of the upper mountainous region of the Caucasus Mountains; in Romania it is found in pastures and glades; in Turkey it is found in subalpine meadows at elevations ranging from 6600 to 7590 feet.

History: There is a 1918 collection from the garden of Wilhelm Suksdorff near Bingen, Klickitat County, at an elevation of 1900 feet. There are two known field locations in Washington. All sites appear to have been originally cultivated as an ornamental species. The site in Pend Oreille County, was discovered in 1981. This site is an abandoned homestead, and *C. macrocephala* has grown from a few plants to over 10 acres. The site is actively controlled and regularly monitored.

Growth and Development:

*C. macrocephala* is a perennial that reproduces by seed. The rosette (usually) does not produce a flowering stalk the first year. Flowers are present from mid-July to August. The seeds are dislodged from the mature cup-shaped seed heads by wind or by direct contact. The large, heavy seeds are not wind dispersed. This species can overwinter as a mature plant, seedling or seed. Seed viability in the soil is not known.

Reproduction: Bighead knapweed spreads by seed, and it can be propagated by root division..

Response to Herbicide:

Response to Cultural Methods:

Response to Mechanical Methods:

*C. macrocephala* is a taprooted perennial, and pulling as a control option is impractical for large plants. When the flowering stem is broken off, a new stem will grow from the woody crown, producing another flower head later in the season. Repeated mowing will reduce seed production, and will eventually diminish root reserves. Small plants can be dug, monitoring the site until seed banks are depleted.

Biocontrol Potentials: None known.

**References:**

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\* ***References available from the Washington State Noxious Weed Control Board Office in Kent.***

Rationale for Listing:

In Washington state, this species has escaped garden cultivation to establish in an abandoned homestead in high elevation rangeland. Once established, this species is very difficult to control, and the threat exists to our natural areas, including subalpine meadows. This species is still offered for sale in nurseries and in seed packets. *Centaurea macrocephala* is a Class A noxious weed in Washington, and eradication is still a practical control method at this time.