

Help Protect California Landscapes

Invasive Weed to Watch for:

Spotted Knapweed



Spotted Knapweed (*Centaurea stoebe* ssp. *micranthos*)

What is a Noxious Weed?

A noxious weed is a category of invasive plant. Invasive plants are not native to the area, and tend to be very aggressive by outcompeting native plants for nutrients and water. By crowding out native plants, noxious weed infestations result in decreased plant diversity and decreased forage and habitat for native animals. Noxious weeds degrade fish and wildlife habitat, clog waterways, turn pastures into wastelands, disrupt forest regeneration, and overrun our forest and park areas. Although usually brought in accidentally, sometimes noxious weeds are introduced intentionally, especially when homeowners are looking for new and exotic landscaping specimens.

Did you know? *Noxious weeds are the second greatest threat to species conservation—second only to land development!*



Spotted Knapweed rosettes (prior to blooming)

Facts about Spotted Knapweed

- ◆ Spotted knapweed (*Centaurea stoebe* ssp. *micranthos*) is a biennial to short-lived perennial that is a member of the Asteraceae family.
- ◆ Native of Europe and Asia. Originally introduced to North America in the 1890s as a contaminant in agricultural seed and through soil discarded from ship ballast.
- ◆ Prefers dry-sandy soils and can be found growing in a wide range of natural and disturbed habitats. Typically occurs on light, well-drained soils.
- ◆ Highly invasive and severely decreases the biological diversity of native and agronomic habitats by reducing the availability of desirable forage for livestock operation, degrading wildlife habitats, and hindering reforestation and landscape restoration efforts. Infestations cause increase runoff, sedimentation, and decreased water-holding capacity in soil.
- ◆ Roots exude allelopathic chemicals that inhibit the growth of other vegetation, thus allowing it to quickly spread in areas where it becomes established. It is not palatable as a forage plant and is avoided by both livestock and native grazers.
- ◆ Plants form basal rosettes during winter and early spring (sometimes persisting as rosettes for several years) and develop erect, highly branching stems in late spring and summer.
- ◆ Reproduces by seed and from rhizomes, root sprouts or fragments, and/or by resprouting when damaged.

Spotted Knapweed Identification:

- ◆ **Stems:** Slender, hairy stems are upright, stiff, and branched. Stem height varies from two feet on upland sites to four feet on wetter sites.
- ◆ **Leaves:** Gray-green, covered in rough hairs, and deeply divided. Rosette leaves grow up to 6" long. Stem leaves alternate, with lower stem leaves resembling rosette leaves, becoming small (1-3" long), entire and linear higher up the stem.
- ◆ **Flowers:** Small, oval, pink to purple (rarely white), produced at the end of branched stems and covered with stiff bracts marked with dark, upside-down "V" markings, giving them a spotted appearance. The blooming period is typically between May-October.
- ◆ **Seeds:** Seeds are 0.1" long, oval, and black or brown with pale, vertical lines. At the tip of each seed is a short, bristly pappus about half the length of the seed, enabling wind dispersal. An individual plant may produce as many as 40,000 seeds.
- ◆ **Roots:** Strong taproot. Some plants produce a shallow mat of fibrous roots extending from the plant for several feet. Some sprouting from lateral roots occurs.



Spotted Knapweed flower. Note the dark, upside-down "V" markings on the bract

Control Methods:

Mechanical:

- ◆ Small infestations can be repeatedly hand-pulled. It is crucial that the entire root is removed since spotted knapweed is capable of vegetative reproduction from root fragments. When soil dries, it may be difficult to remove the root crown and this can lead to rapid reestablishment.

Biological:

- ◆ Currently, there is no single control agent that effectively controls spotted knapweed populations. For list of biological control agents observed to attack spotted knapweed, visit: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_stoebe.pdf

Chemical:

- ◆ Chemicals that are recommended for the control of spotted knapweed include: *Aminopyralid*, *Clopyralid* and *Glyphosate*
- ◆ For a list of recommend herbicides including rate, timing, and summary, please visit: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_stoebe.pdf
- ◆ Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label of the product being used. **Follow all label directions.**



An unchecked Spotted Knapweed population

Invasive weeds displace native plants and destroy healthy forests and parks.

Please

Help protect our native forest and park lands from weed invasion and preserve wildlife habitat.

What You Can Do:

- ◆ **Become familiar with local noxious weeds**
- ◆ **Report any weed sightings**
- ◆ **Do not plant invasive plants in gardens where they potentially could become a problem.**
- ◆ **If traveling from weed infested area, remove seeds and plant parts on clothing, pets, car/bike tires, etc. before returning to an un-infested area to prevent weed spread.**

To report suspected noxious invasive weeds in your area, please contact:

**El Dorado/Alpine County
Department of Agriculture,
Weights and Measures**

**311 Fair Lane, Placerville, CA
(530)621-5520
eldcag@edcgov.us**

