

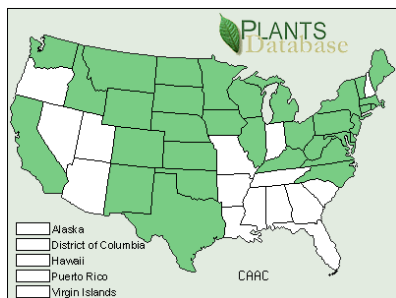


Spiny Plumeless Thistle *Carduus acanthoides* L.

Common Names: plumeless thistle, spiny plumeless thistle, bristly thistle

Native Origin: Europe and Asia

Description: A biennial forb in the aster family (Asteraceae) growing 1 – 4 feet in height. Stems are freely branched with spiny wings extending to flowering heads. Leaves are deeply divided with alternate lobes that end in a spine. Leaves have hairs on the underside and are simple and alternate. Flowers are pinkish-red to purple, erect, 0.5 – 1 inch in diameter, single or clustered and have spiny wings at the base. Flowers occur at the ends of the branches and bloom from July to October in the second year. The fruit is a 4-angled dry seed. Each plant is capable of producing up to 100,000 seeds that are dispersed by wind. Plants reproduce by seeds that can remain viable for 10 years in the soil. It has a single stout fleshy taproot.



Habitat: It is found in disturbed sites, roadsides, old pastures, waste places, ditch banks, old fields, hay fields, and stream valleys. It prefers fertile soils developed over limestone, but it is adaptable and can grow in shallow soil, emerging from stone quarries.

Distribution: This species is reported from states shaded on Plants Database map. It is reported invasive in IA, MN, NJ, OR, SD, VA, WA, WI, and WY. It has also become established in the bluegrass of KY in deep soils over limestone.

Ecological Impacts: This plant invades fields and pastures competing with native species or forage crops. The presence of non-native thistles can lead to severe degradation of native grasslands and meadows. It is unpalatable to livestock. Grazing animals focus on native vegetation, giving thistles a competitive advantage. Spiny plumeless thistle can become weedy and form dense colonies.

Control and Management: Eliminating seed production should be a primary goal in control



- **Manual-** Mow or cut second year plants twice per growing season just before flowering will help to prevent seed production.
- **Chemical-** Herbicides are not recommended in high quality natural areas. However, if used, herbicides are most effective in the rosette stage and least effective in the flowering stage. Spot-spray rosettes in the fall after plants are dormant with 2-4-D ester. Clopyralid and metsulfuron-methyl can be used for foliar sprayings. For small infestations, cut and bag flower heads followed by an application of glyphosate to the cut stem surface. Follow label and state requirements.

• **Biological Control-** The seed-feeding insect *Rhinocyllus conicus* and the rosette weevil *Trichosiocalus horridus* have been released against spiny plumeless thistle. *Rhinocyllus conicus* is established in Virginia, Maryland, Pennsylvania, Idaho, Washington, and West Virginia. *Trichosiocalus horridus*, a rosette weevil has been established in Kansas, Maryland, Missouri, and Virginia.

References: www.forestimages.org, http://plants.usda.gov, www.nps.gov/plants/alien/list/a.htm
Czarapata, Elizabeth J. Invasive Plants of the Upper Midwest, an Illustrated Guide to their Identification and Control, 2005 p. 101-102, http://el.erdc.usace.army.mil/pmis/plants/html/carduus_.html, www.invasive.org/eastern/biocontrol/21PlumelessThistle.html