

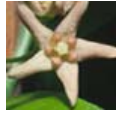


Invasive Plant Atlas of New England

Catalog of Species Search Results

Centaurea biebersteinei

(Spotted knapweed)



[:: Catalog of Species Search](#)



[Common Name\(s\)](#) | [Full Scientific Name](#) | [Family Name Common](#) | [Family Scientific Name](#) | [Images](#) | [Synonyms](#) | [Description](#) | [Similar Species](#) | [Reproductive/Dispersal Mechanisms](#) | [Distribution](#) | [History of Introduction in New England](#) | [Habitats in New England](#) | [Threats](#) | [Early Warning Notes](#) | [Management Links](#) | [Documentation Needs](#) | [Additional Information](#) | [References](#) | [Data Retrieval](#) | [Maps of New England Plant Distribution](#)

COMMON NAME

Spotted knapweed

FULL SCIENTIFIC NAME

Centaurea biebersteinei DC

FAMILY NAME COMMON

Aster family

FAMILY SCIENTIFIC NAME

Asteraceae

IMAGES



Incursion



Seed head



Top of inflorescence



Habit



Inflorescences



Involucre bracts

NOMENCLATURE/SYNONYMS

Synonyms: *Centaurea maculosa* auct. non Lam.
Acosta maculosa auct. non Holub.

DESCRIPTION

Botanical Glossary

Centaurea biebersteineii is an herbaceous biennial or short-lived perennial that can grow between 30 cm and 1.5 m (1-4 ft.) in height. One or more branching, upright stems emerge from the basal leaves of the plant. The plant is slightly puberulent (short hairs). The alternate leaves are bipinnatifid, getting smaller as they go further up the stem. The lower leaves are 10-20 cm (4-8 in.) in length and can be 3 cm (1.2 in.) wide, while the smaller upper leaves can be less than 1 cm (0.4 in.) long.

The thistle-like flowers are purple, white or pink and are 1.3 cm (0.5 in.) in diameter. The flowers are present from June-October. The bracts have obvious venation. The lower and middle bracts are ovate. They are green to brown in color and have dark, pectinate tips that are not spiny. The seeds are oval in shape and are brown to black, with attached pappus that is short and chaffy.

Page References Fernald 984, Gleason & Cronquist 615, Holmgren & Magee & Ahles 1021, Newcomb 234, Peterson & McKenny 92, 30 reference section below for full citations.

SIMILAR SPECIES

Acroptilon repens (L.) DC/ *Centaurea repens* L. (Russian knapweed)
Centaurea cyanus L. (cornflower, bachelor button)
Centaurea diffusa Lam. (white knapweed, diffuse knapweed)
Centaurea nigra L. (black knapweed)

Character	<i>C. biebersteineii</i>	<i>A. repens</i>	<i>C. cyanus</i>	<i>C. diffusa</i>	<i>C. nigra</i>
Flower Color	Purple (Sometimes White or Pink)	Purple	Blue (Sometimes Pink or Purple)	White	Pink/
Bract (Phyllaries)	Dark tip with fringed margin	Silver-green with thin membranous tip (not fringed)	Striated with toothed margin	Tipped with slender spine	Tipped with fringed

REPRODUCTIVE/DISPERSAL MECHANISMS

Centaurea biebersteineii reproduces primarily by copious seed production. Vegetative reproduction via shoots is less important. The seeds are dispersed by wind, by sticking to grazing animals and vehicles, and through contact with hay.

DISTRIBUTION

Centaurea biebersteineii is a native to Europe. It is found in the northern mid-Atlantic, midwestern and northwestern regions of the U.S. It is found from Nova Scotia to British Columbia in Canada. It is widespread of the New England states, though it presents more of a problem in the western U.S., where its infestations cover extensive acreage.

HISTORY OF INTRODUCTION IN NEW ENGLAND

It is likely that *Centaurea biebersteineii* became naturalized in the States in the late 1800's after multiple accidental introductions. It may have arrived in the northwestern U.S. as a contaminant in alfalfa shipments. In the northeast, it probably arrived as a ballast soil contaminant. By 1892 it had been noted in ballast soil heaps in New York, Philadelphia, Camden, New Jersey and South Bethlehem, Pennsylvania. Britton and Brown (1898) note its presence in New England. Gray's Manual of Botany 7th ed. listed its range as being from New England to New Jersey.

HABITATS IN NEW ENGLAND

Abandoned Field
Abandoned Gravel Pit
Agricultural Field
Coastal Beach or Dune
Edge
Open Disturbed Area
Pasture
Railroad Right-of-Way
Roadside
Utility Right-of-Way
Vacant Lot
Yard or Garden

Being shade intolerant, *Centaurea biebersteineii* is most commonly found in disturbed sites, roadsides and open areas. It is also common in sand along rivers, rock outcrops and barrens.

THREATS

Once established in a disturbed site *Centaurea biebersteineii* can invade nearby undisturbed sites with a slow frontal expansion. It competes with native vegetation and can decrease local species diversity. Its roots exude an allelopathic compound called catechin that disrupts the growth of neighboring plants and regulates its own seedling recruitment. Its roots have phytostabilizing capabilities; therefore, it tends to promote soil erosion.

MANAGEMENT LINKS

[Department of Conservation and Recreation, Virginia Native Plant Society](#)

[The Nature Conservancy](#)

[The Connecticut Invasive Plant Working Group Invasive Plant Management Guide](#)

Comprehensive management information.

[Wisconsin Department of Natural Resources](#)

[Plant Conservation Alliance](#)

Fact sheet including management information

DOCUMENTATION NEEDS

Documentation required: A photograph of the habit, inflorescence, or leaves.

Best time for documentation: Summer, fall.

ADDITIONAL INFORMATION

[Integrated Taxonomic Information System](#)

Taxonomic information about the species

[PLANTS database](#)

General information and map

[The Nature Conservancy](#)

Extensive description, biology and control information

[Wisconsin Department of Natural Resources](#)

Description, biology and control information

[Missouri Flora](#)

Images

[North Dakota State University Extension Service](#)

[University of Massachusetts- Boston](#)

General information and a map of spread in Massachusetts

[Department of Conservation and Recreation, Virginia Native Plant Society](#)

Fact sheet

[Ohio Perennial and Biennial Weed Guide](#)

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DATA RETRIEVAL

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MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

Select a study area by clicking the radio button and then click "Submit Selection"

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- One or more states
- One or more counties
- One or more towns (county sub-divisions)

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