

Spotted Knapweed

CESTM

Centaurea stoebe L. *ssp. micranthos* (Gugler) Hayek

Synonyms: *Centaurea biebersteinii* DC., *C. maculosa* Lam., bushy knapweed.

From: Miller, James H. and Steve T. Manning. [working title] An Expanded Nonnative Invasive Plants of Southern Forests: A Field Guide for Identification and Control. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. DRAFT - August 2008

Family: Asteraceae

Plant. A bushy, winter-hardy, upright perennial forb living 3 to 5 years or sometimes longer often in dense infestations. A deep taproot supports an initial rosette of bluish-green, woolly dandelion-like leaves. Stem leaves pinnately dissected becoming smaller and less dissected towards the tips of multiple woolly, hairy stems. Mid-plant branches topped by a few to many pink to lavender thistle flowers constricted below the plume by distinctively fringed bracts with black-tips (thus the common name "spotted") to produce 1000's of tiny bristle-topped seeds. Dead tops remain in winter with new sprouts in spring. A severe invasive in most of the U.S. and now invading the South.

Stem. Round, upright in multi-stemmed clumps, to 3.2 feet (1 m) tall, covered in dense woolly hairs and having ridges that extend downward from leaf bases. Upper stems wiry and slender with many alternate branches that end in flowers. Young plants may have only one stem with one flower while older plants can have hundreds of flower-tipped branches.

Leaves. Rosette leaves gray-green, hairy and covered with shiny specks interspersed with translucent dots, 4 to 8 inches (10 to 20 cm) long decreasing in size above mid-stem, alternately whorled and jutting out and upward. Basal leaves deeply divided into elliptic or linear lobes that can appear like leaflets along a wide whitish to purplish midvein. Lobes become more slender and fewer on upper leaves, with simple leaves near the flowers.

Flowers. June to November. Each branch topped by an egg-shaped flower bud covered with overlapping rows of dry, fringed (not spiny) green bracts with black tips. Bracts eventually part at top to allow a constricted pinkish to lavender thistle plume to radiate out and up, 0.75 to 1 inches (1 to 1.5 cm) wide and overall about 1 inch (2.5 cm) long, composed of hundreds of tiny perfect flowers with the outer ones being sterile.

Fruit and seeds. June to February. Tightly packed seedheads of oblong, brownish, hairy nutlets (achenes), 0.1 inches (3 mm) long, topped by short stubby bristles. Hairs and bristles for clinging. Upwards of 1000 seeds per plant.

Ecology. Rapidly colonizes roadsides and disturbed lands, especially dry and droughty sites, to invade adjacent undisturbed prairies and open forests. A severe invasive spreading into the South by seeds equipped for dispersal by wind, water, livestock, wildlife, and human activity, with viability in the soil for many years. Seeds germinate throughout the growing season. The roots secrete allelopathic chemicals to inhibit other plant seeds from germinating.

Resembles other thistles and knapweeds but does not have sharp spines and the highly dissected leaves with narrow lobes and the distinct black spot on the involucre make it unique.

History and use. Accidentally introduced from Europe into the northwestern U.S. in the 1890's and later spread rapidly across the West and Midwest and into the Northeast and now the South. Listed on most western State's noxious weed laws.