

Nodding Plumeless Thistle CANU4

***Carduus nutans* L**

Synonyms: muck thistle, nodding thistle

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 variable biennial or annual herb characterized by sharp spines on leaves, branching stems, and bracts surrounding lavender flowers that sometimes nod to one side (thus the common name). Leafy rosettes first appear in either spring or fall, start forming a deep, hollow taproot (no rhizomes) and bolt within 6 months to 6 feet (2 m) high with mid-plant branches topped by one (to a few) composite flower heads that yield 1000s of plumed seeds per plant. The plumes blow away on most leaving the seed in the head (thus the common name “plumeless”). Spring seedlings can produce seeds in the same year while the more common fall rosettes overwinter to produce flower stalks the next spring.

Stem. Round, fleshy, often covered with dense, white, spider-web-like hairs (or not) towards the tops along with scattered spiny bracts, while spiny leafy ridges extend downward along the more stout and erect branched stems towards the leafy base.

Leaves. Seedling leaves in a rosette are oval to oblong with whitish midveins and margined with tiny spines. Larger rosettes follow with thick, dandelion-like leaves up to 15 inches (40 cm) long, coarsely toothed with whitish, sharp spines extending from each vein. Dark green, hairless, and glossy above with a wide whitish midvein, and lighter green beneath. Similar sized leaves spiral out from the stems and decrease in size upward becoming leafy spiny bracts scattered below the flower heads.

Flowers. May to September. Each branch topped by a domed flower bud covered with concentric rows of white spine-tipped bracts that part back and arch downward to form a spiny skirt for a showy pinkish to purplish-lavender thistle flower, 1.5 to 3 inches (4 to 8 cm) wide. Each composed of hundreds of tiny perfect flowers, sometimes nodding to one side, and the tallest on a plant being the largest with the most flowers.

Fruit and seeds. June to October. Tightly packed seedheads of tapered nutlets (achenes), each 0.1 to 0.2 inches (3 to 5 mm) long topped by whitish bristles that frequently blow away without the seed. Upwards of 1200 and 120,000 seeds per plant.

Ecology. Rosettes have buds that produce sprouts when disturbed. Flowers pollinated by insects, most being cross pollinated, but self pollination does occur. Seeds are equipped for dispersal by wind, water, livestock, human activity, and ants, with viability exceeding 10 years in the soil. Most seeds dispersed near the plant and with seedhead fall.

Resembles the invasive bull thistle [*Cirsium vulgare* (Savi.) Ten.] that has hairs on the upper leaf surfaces and the perennial Canada thistle [*Cirsium arvense* (L.) Scop.] that has rhizomes, does not appear in the rosette form and the flower/seedhead bracts are not spiny except the most outer.

History and use. Introduced from southern Europe in the early 1900's as an ornamental.