Scotch Thistle *Onopordum acanthium* L

Common Names: cotton thistle, Scotch thistle, Scots cottonthistle, heraldic thistle, woolly thistle

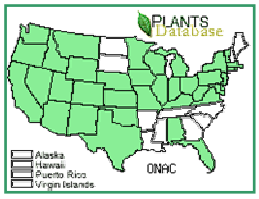
Native Origin: Europe and eastern Asia

Description: An herbaceous biennial (or sometimes annual) in the Aster family (Asteraceae) that grows 6 to 8 feet in height. The plant is coarse, many-spined, highly branched, and grey-green in appearance. The leaves are oblong and prickly being toothed or slightly lobed along the margins. In the first year, leaves form a rosette. During the second year, cottony leaves are large (1 foot), and hairy with triangular lobes. Mid vein is prominent and is covered with fine dense hairs on both sides. Leaves are spiny-edged and form "wings" around the stalk. The dark pink to lavender flower heads measure 1-2 inches in diameter. The whorl of bracts beneath the flower is tipped with flat, pale, orange-colored spines. Flowers stand alone on branch tips and bloom July-October. The seeds of this plant are 4-5 mm (0.2 in.) in length, smooth, slender, and plumed. Stout taproots anchor the plant. It is distinguished from all other thistles by the very dense, white woolly covering on stems and leaves.

First year leaf rosette

Habitat: It occurs in localities such as waste places, dry pastures, fields, rangeland, fence lines, along railroads, highways and around old buildings, usually in gravelly soils where it has escaped from cultivation. It is also found along rivers, streams, canals, or other waterways. The plant thrives in light, well drained, sandy or stony soils. In Connecticut, the species occurs on naturally disturbed gravelly coastal shoreline in the company of several other non-natives.

Distribution: In the United States, the plant is found in most states-from Vermont to Virginia, Alabama and Florida and west to California. Note shaded states on the map.



Ecological Impacts: This plant escaped gardens and/or landscaped areas to become a major weed. It can form dense stands, reduce productivity and compete with native plants for resources. Each plant can produce over 20,000 lightweight seeds that are dispersed by wind, water, or by becoming attached to livestock. It can form a physical barrier to grazing animals.

Control and Management: A dense canopy of competitive, perennial grasses may be the most effective practice for preventing establishment.

- **Mechanical**- Small infestations should be physically removed- dig out by hand or cut a few inches below the soil surface. Mowing by early flowering will reduce seed production, but may require repeated treatment because populations typically exhibit a wide range of developmental stages among individual plants. Slashing should be done prior to flowering since seed may mature in the seed heads after cutting. Plants should not be mowed following seed set, as this increases chances for dispersal.
- **Chemical**- Buried seed may persist for up to twenty years, and re-infestation is likely without yearly management; therefore several years of re-treatment may be necessary. Use Dicamba and 2,4-D herbicides.
- **Biological Control**- A thistle crown weevil (Trichosirocalus horridus) that feeds on musk, bull, plumeless, Italian, and Canada thistles will also feed on Scotch thistle.

References: http://plants.usda.gov, http://extension.usu.edu/weedweb/ident/Scotch_id.htm, Field Guide to Noxious and Other Selected Weeds- www.agf.gov.bc.ca/cropprot/weedguid/scotchth.htm, Invasive Plant Atlas of New England- http://webapps.lib.uconn.edu/ipane/browsing.cfm?descriptionid=81, www.ovma.on.ca/Weeds/scotch.htm, www.cdfa.ca.gov/phpps/ipc/weedinfo/onopordum.htm, www.issg.org/database/species/ecology.asp?si=295&fr=1&sts

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Invasive Plants website: http://www.na.fs.fed.us/fhp/invasive_plants