

Identification of Common Ohio Roadside Weeds. Part 1. Cut-leaved and Common Teasel (*Dipsacus laciniatus* and *Dipsacus fullonum*)

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Cut-leaved (*D. laciniatus*) and common teasel (*D. fullonum*) are considered two of the most invasive species in Ohio's natural areas (Ohio Invasive Plant Council, 2010). Teasel was introduced into the US in the 1700's for processing of wool from southern Europe (Bobrov, 1957). As an invasive species, teasels reduce diversification of native plant populations, diminish visibility for traffic (Bentivegna and Smeda, 2011) and increase soil erosion by reducing penetration of water into soil (Lacey et al., 1989). Both species thrive in open disturbed areas and prefer moist, coarse soils. Teasels are biennials reproducing only by seed and are salt tolerant providing them an adaptive advantage along roadsides (Bentivegna and Smeda, 2011). Cut-leaved teasels can produce up to 33,527 seeds per plant (Bentivegna and Smeda, 2011). First year plants form large rosettes and second year plants form flowers. Common teasel is found throughout Ohio and although cut-leaved teasel was not as widespread in Ohio in 2010 (Ohio Invasive Council, 2010), its rapid dispersal and tremendous seed production has allowed it to spread throughout most of Ohio by 2016. The pictures taken and listed below were from an Ohio county not known to have cut-leaved teasel in 2010.

Cut-leaved teasel can be distinguished from common teasel, in the reproductive phase, as the cut-leaved teasel has white flowers (Fig. 1A). Common teasel has pink or purple flowers. The flowers of both species are small with tubular corollas 10-15 mm long. The corolla ends are four-lobed, 3-4 mm wide and have four protruding stamens from the corolla tube. This inflorescence typifies the Dipsacaceae or Teasel Family. After flowering, the densely spiny heads or capitulum borne on the end of branches (Jurica, 1921), take on an oval or egg-shape with long slender, stiff bracts below the head (Fig. 1B). Numerous, short stiff bristles occur on the head of both species.

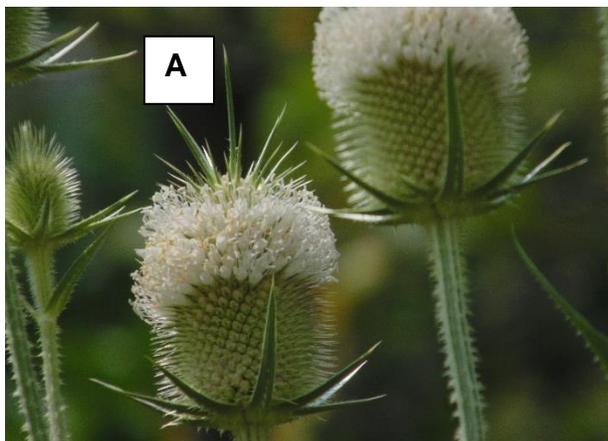


Fig. 1 A and B. **A.** (Above left) The white tubular flowers of cut-leaved teasel are shown distinguishing it from common teasel's pink – purple flowers. **B.** (Above right) after the tubular white flowers fade the flower heads look more oval or egg-shaped. (Photos by: H. Mathers, July 20, 2015, Morrow County, Ohio).

In its vegetative phase, cut-leaved teasels have deeply lobed upper leaves (Fig. 2A and B) with opposite arrangement, two per node. The leaf bases unite to form a cup where rainwater can collect (Fig. 2B). The leaves of common teasel are wrinkled and spineless on the margins. Both species have spines on the under leaf surfaces especially along the mid-rib (Fig. 2B). The common teasel leaves have no lobes, although they may be somewhat toothed (Alex and Switzer, 2003). The stem of the second-year plants are erect, with ridges, usually branched toward the top and have many down-turned prickles, increasing in density as you move up the stem (Fig. 2C) (Uva et al., 1997).

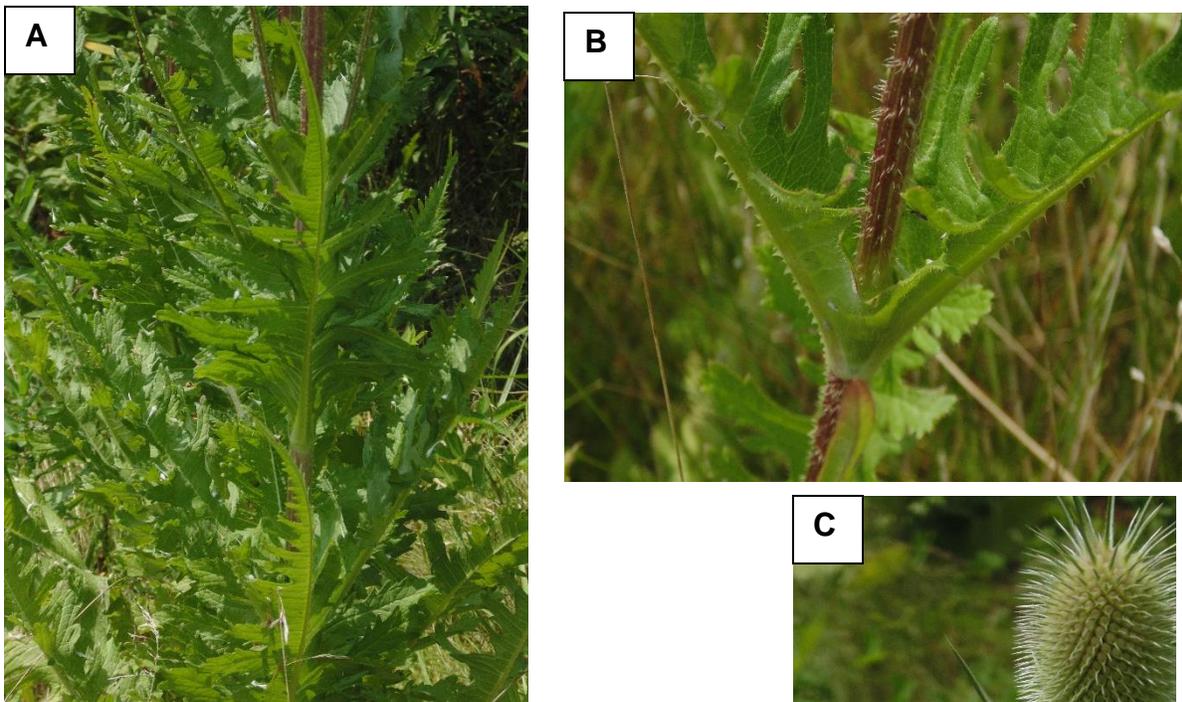


Fig. 2 A, B and C. **A.** (Above left) leaves are cut-leaved teasel are deeply lobed in the upper regions of the plant. **B.** (Above left) Cut-leaved teasel leaves unite at their bases forming a cup. **C.** (Left) Cut-leaved and common teasel have down-turned spines on the stem and along the midrib of the leaf's undersurface (B). Photos by: H. Mathers, July 20, 2015, Morrow County, Ohio.



References:

Bentivegna D.J. and R.J. Smeda. 2011. Seed production in Cutleaf teasel (*Dipsacus laciniatus*) in Central Missouri. *Biologia* 66: 807-812.

Bobrov E.G. 1957. Genus 1411. *Dipsacus* L., pp. 16-20. In: Shihkin, B.K. and E.G. Bobrov (eds), *Flora of the USSR*, Vol XXIV, Moskva, Leningrad.

Jurica, H.S. 1921. Development of head and flower of *Dipsacus sylvestris*. *Bot. Gazette* 71:138-145.

Lacey, J.R., C.B. Marlow and J.R. Lane. 1989. Influence of spotted knapweed (*Centaurea maculosa*) on surface runoff and sediment yield. *Weed Technol.* 3:627-631.

Ohio Invasive Plant Counsel. 2010. Fact Sheet No. 15. Invasive Plants of Ohio. Ohio Department of Natural Resources. Website last visited: 04/22/2016.
<http://www.oipc.info/uploads/5/8/6/5/58652481/15factsheetcommoncutleavedteasels.pdf>

Ontario Weeds. 2003. Publication 505. Ontario Ministry of Agriculture and Food. Agdex 640. Website last visited: 04/22/2016. <http://www.weedinfo.ca/>

Uva, R. H., J. C. Neal, J. M. DiTomaso. 1997. *Weeds of the Northeast*. Comstock Publishing. Ithaca, NY.