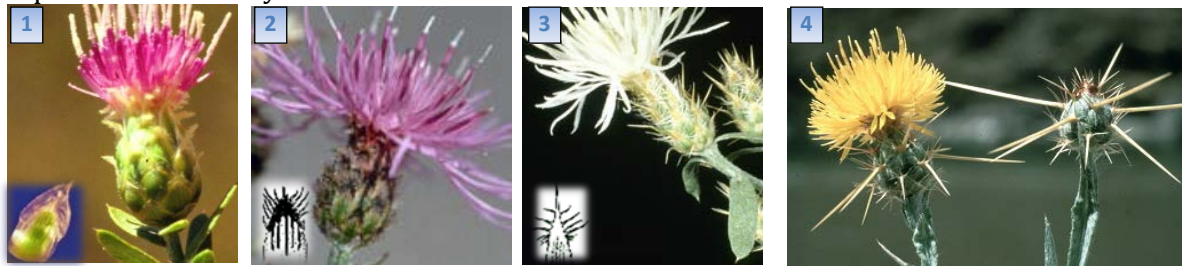


Knapweed Identification

This Weed Post focuses on knapweed identification. More information on impacts, habitat, spread and management priorities can be found in the recently revised "Biology, Ecology and Management of Montana Knapweeds", available at:

<http://msuextension.org/publications/AgandNaturalResources/EB0204.pdf>

Why focus on identification? There are eight troublesome, non-native knapweed species shown in Figures 1-8 below, and telling them apart can be tricky. Proper identification is the first step towards effective management. Knapweeds on the Montana noxious weed list are shown in Figures 1-4. Figures 5-8 show knapweeds that resemble Montana state-listed species, and we should be aware of them because they are noxious weeds in other northwestern states and have been reported occasionally in Montana.



Figures 1-4. Montana state-listed knapweeds; the first three are priority 2B, and yellow starthistle is priority 1A. **(1)** Russian knapweed, *Acroptilon repens*, formerly *Centaurea repens*; **(2)** Spotted knapweed, *Centaurea stoebe* formerly *Centaurea maculosa*; **(3)** Diffuse knapweed, *Centaurea diffusa*; **(4)** Yellow starthistle, *Centaurea solstitialis*.

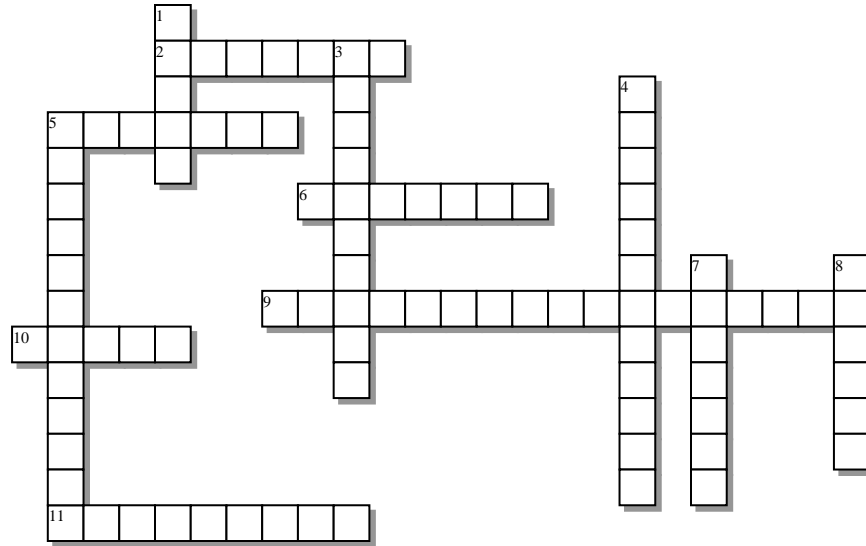


Figures 5-8. Other non-native knapweeds that may occur in Montana, but are not on the state noxious weed list (northwestern state(s) where noxious). **(5)** Brown knapweed, *C. jacea*, (WA); **(6)** Black knapweed, *C. nigra* (WA); **(7)** Meadow knapweed, *C. pratensis*, (ID, OR, WA); **(8)** Squarrose knapweed, *C. virgata* (UT).

Except for yellow starthistle with its bright yellow flowers and long, sharp spines (Figure 4), a careful examination of knapweed bracts is necessary to distinguish among them (see insets in Figures 1-8).

- Both **Russian** (Figure 1) and **brown** (Figure 5) knapweed bracts have no fringes or spines, but a papery translucent edging. Russian knapweed bracts are yellow to green and end in a point, while brown knapweed bracts are brown at the base and flared out rather than pointed.
- **Spotted** (Figure 2), **black** (Figure 6) and **meadow** (Figure 7) knapweed bracts all have similar fringes, making them difficult to distinguish. The fringes on spotted knapweed are equal to or shorter than the bract width; in contrast, fringes on black and meadow knapweed are longer than the bract width. Fringe color differentiates black (black) and meadow (brown) knapweeds.
- Both **diffuse** (Figure 3) and **squarrose** (Figure 8) knapweed bracts have a short terminal spine. Spines on diffuse are straight and point upwards, and those on squarrose are curved, pointing outward.

Weed Post Puzzle: Test your knowledge of knapweeds



Across:

- 2 - Knapweed with papery, translucent bract edge that comes to a point
- 5 - Both Russian knapweed and yellow starthistle can cause _____ disease in horses*
- 6 - Knapweed with fringe length shorter than bract width
- 9 - The only knapweed in Montana with priority 1A status
- 10 - Knapweed with black fringes longer than the bract width
- 11 - Knapweed with a short terminal spine on the bract that curves to point outward

Down:

- 1 - Knapweed with papery, translucent bract edge that flares out rather than comes to a point
- 3 - New genus name for the only knapweed that reproduces rhizomatously and by seed*
- 4 - The bright yellow flowers and long spines of *Centaurea* _____ make it easy to identify
- 5 - Genus name for a root weevil that is particularly effective on spotted knapweed*
- 7 - Knapweed with a short terminal spine on the bract that points upward
- 8 - Knapweed with brown fringes longer than bract width

*Refer to the Extension Bulletin for answers to these questions.

Solutions are posted on the MSU Extension Invasive Rangeland Weed website:
<http://www.msuextension.org/invasiveplantsMangold/extensionsub.html>

